#### DOCUMENT RESUME

ED 066 614

VT 016 566

AUTHOR

Schaefer, Carl, Ed.

TITLE

Contemporary Concepts in Trade and Industrial

Education.

INSTITUTION

American Vocational Association, Washington, D.C.

PUB DATE Mag

NOTE

May 72

54p.; Proceedings of a National Conference for Trade and Industrial Education (Arlington, Virginia,

October 18-20, 1971)

20.04

AVAILABLE FROM

Publications Sales, American Vocational Association, 1510 H Street, N.W., Washington, D.C. 20005 (\$3.00:

Order Number 490672)

EDRS PRICE DESCRIPTORS

MF-\$0.65 HC-\$3.29

Advisory Committees; \*Conference Reports;

\*Educational Objectives; Educational Philosophy; Employment Qualifications; \*Fundamental Concepts; Manpower Development; \*Manpower Needs; \*Trade and

Industrial Education; Vocational Education

#### ABSTRACT

Included in this report are the presentations made at a 4-day national conference regarding the role of trade and industrial education in meeting the nation's manpower needs. More than 175 leaders heard the following speeches: (1) "The Role of Trade and Industrial Education" by Michael Russo, (2) "Industry's Concepts of Trade and Industrial Education in Development of Human Resources" by Lindon Saline, (3) "Politics and Vocational Education" by Kenneth Young, (4) "Trade and Industrial State Advisory Councils for Vocational Education: Relationship and Emphasis" by Alton Ice, (5) "Relationship of Trade and Industrial Educators to the State Legislative Process" by Kenneth MacKay, Jr., (6) "The Importance of Vocational Education and the Economic and Social Fabric of the United States" by Roman C. Pucinski, (7) "The Role of Trade and Industrial Vocational Education Programs In Meeting Manpower Needs" by William Hewitt, and (8) "Conclusion - Where Do We Exert Our Efforts?" by Joe Mills. Also included are the introductory speeches and summaries of the National Occupational Competency Testing Project and the National Study for Accreditation of Vocational-Technical Education. (JS)





U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY
REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

A National Conference for Trade and Industrial Education Sponsored by the American Vocational Association Hospitality House, Arlington, Virginia October 18-20, 1971

Conference Editor: Carl Schaefer



Single copy, \$3.00 Order number (490672). 10 percent discount on orders of 10 or more. Requests not accompanied by payment will be filled only when submitted as official purchase orders from institutions or agencies and amount is \$5.00 or more; postage charges will be added to these billed orders. All other orders must be accompanied by payment. No return privileges. Order from Publication Sales, American Vocational Association, 1510 H Street, N.W., Washington, D.C. 20005.

MAY 1972



#### **PREFACE**

In October, 1971, the Trade and Industrial Division of the American Vocational Association sponsored a program development conference entitled, "Contemporary Concepts in Trade and Industrial Education." Attending this conference were many persons who hold leadership positions in the field. Their contributions represent a significant point of view of those in Trade and Industrial Education.

The following report is a result of that group's deliberations. It should serve as a step for further refinement of the role of Trade and Industrial Education in meeting the nation's manpower needs. In its present form this document is not intended to be a statement of AVA policy, nor, in any way, to completely reflect the opinions of all trade and industrial educators. However, it should emphasize the initiative taken by the American Vocational Association to provide the leadership for continually improving instructional programs in vocational education.

LOWELL A. BURKETT

Executive Director

American Vocational Association



#### **CONTENTS**

Preface	3
Decisions TO ESTABLISH DIRECTION AND ENCOURAGE TRANSITION OF TRADE AND INDUSTRIAL EDUCATION DURING THE COMING DECADE	7
Presentations* INTRODUCTION - CHARGE TO THE CONFERENCE	9 10
GREETING FROM AVA T. Carl Brown	10
THE ROLE OF TRADE AND INDUSTRIAL EDUCATION	11
INDUSTRY'S CONCEPTS OF TRADE AND INDUSTRIAL EDUCATION IN DEVELOPMENT OF HUMAN RESOURCES	15
POLITICS AND VOCATIONAL EDUCATION	17
TRADE AND INDUSTRIAL STATE ADVISORY COUNCILS FOR VOCATIONAL EDUCATION: RELATIONSHIP AND EMPHASIS	20
RELATIONSHIP OF TRADE AND INDUSTRIAL EDUCATORS TO THE STATE LEGISLATIVE PROCESS	22
THE IMPORTANCE OF VOCATIONAL EDUCATION TO THE ECONOMIC AND SOCIAL FABRIC OF THE UNITED STATES	27
THE ROLE OF TRADE AND INDUSTRIAL VOCATIONAL EDUCATION PROGRAMS IN MEETING MANPOWER NEEDS	32
CONCLUSION — WHERE DO WE EXERT OUR EFFORTS?	-36
Miniseminars I. THE NATIONAL OCCUPATIONAL COMPETENCY TESTING PROJECT	39
II. THE NATIONAL STUDY FOR ACCREDITATION OF VOCATIONAL- TECHNICAL EDUCATION	41
Appendices A. THE CONFERENCE PROGRAM B. PROGRAM PARTICIPANTS C. CONFERENCE PARTICIPANTS	42 45 47



<sup>\*</sup>The text of the address given by Robert Worthington, Associate Commissioner, Bureau of Adult, Vocational and Technical Education, U.S. Office of Education, to the T & I Conference on October 18, 1971 is not available for this publication.

#### **DECISIONS**

# TO ESTABLISH DIRECTION AND ENCOURAGE TRANSITION OF TRADE AND INDUSTRIAL EDUCATION DURING THE COMING DECADE

Eight discussion groups focused on separate issues facing Trade and Industrial Education. These group discussions, coupled with resource persons, leaders, and recorders, produced the following tenets for action.

- I. The scope of trade and industrial education will include those programs, services,
  and activities that provide the opportunity for all persons of all ages and of all
  abilities and in all communities to enter
  and remain in the world of work as
  adjusted productive citizens in trade,
  industrial, and technical occupations. As
  such it is imperative that:
  - Since the majority of the working population in America is engaged in those occupational areas classified as trade, industrial and technical, trade and industrial educators have the responsibility and the right to make inputs into whatever concept of education (such as career education) when it is considered for implementation for the future and present citizens of our nation.
  - T&I educators believe that the scope of programs, services, and present day activities of trade and industrial education must provide influential direction for any educational system changes.

In order to come to grips with these issues, it is recommended that the Vice-President of the American Vocational Association for the Trade and Industrial Division, with its membership of over 13,000, charge the Policy and Planning Committee to place high priority on activities designed to evaluate the scope of T&I education and its relationship to new and emerging concepts of education designed to meet the needs of our nation and its people. It is further emphasized and hoped that this activity will conclude that Trade and Industrial educators will have a role to play at the policy making level with designers of any new educational concept that is built on the occupational fields now encompassing T&I education. To ignore this precept is to but permeate confusion in the ranks of the profession.

II. The role of trade and industrial education in career education will be to give leader-ship, direction, and assistance to fellow educators in the endeavor to establish segments of T&I education in the career

education concept. Segments thus far identified are:

- The ongoing offerings of trade and industrial education of a discrete nature which presently enroll more than two-million students in day trade, apprenticeship, and extension-type programs.
- Emerging clusters of T&I occupations such as construction, transportation, communications and media, personal services occupations, manufacturing and marine science, which are being included in the career education concept.

Action called for in implementing the role of trade and industrial education to the fullest in this endeavor include:

- The development of appropriate instructional materials.
- Articulation with other teachers throughout the system, parents, students, business and industry, labor, and above all the general public.
- Pre- and in-service (with the emphasis for the present on the latter) teacher education programs.
- A combined effort at all levels: federal, state, and local to achieve these goals.
- III. Meeting the needs in teacher education in keeping with the scope and role of trade and industrial education must be recognized as a major concern in the decade ahead. Teacher education will serve as a prime mover in either program expansion and/or redirection. As such, T&I teacher educators will be charged with supplying both the quantity and quality of those individuals to staff the classrooms, shops, and laboratories of the present and emerging career education concept. In meeting this challenge, T&I teacher educators look with concern on the following:
  - Adequate recognition of teacher education in terms of appropriate legislation and funding.
  - Certification and standards for T&I teachers both present and those of the future.
  - Devising ways and means of keeping T&I teachers up-to-date in both technology and pedagogy.
  - Proper emphasis of T&I in staffing vocational teacher education departments in colleges and universities.

In order to arrive at agreeable solutions to these concerns, it is pointed out that action needs to be taken at top administration levels with federal, state, and local teachers.

ERIC

6/

- IV. The development of youth organizations during the next ten years entails two major goals. First, all T&I students should be embraced by the Vocational and Industrial Clubs of America (VICA) youth program to involve them in leadership, citizenship, and character development activities. And second, the VICA concept must become an integral part of the T&I instructional program as it moves into the total career education spectrum. To accomplish these goals the following recommendations were made:
  - Vocational youth organization activities be given their rightful role in the career education plans as being developed by the United States Office of Education.
  - Vocational youth organizations themselves take leadership in developing career education clubs at all levels.
  - T&I teachers be prepared in the skills of conducting youth organization activities, and this be included in their certification.
  - All T&I students have an opportunity to participate in VICA and that this activity take full advantage of the allocation of federal funds to support vocational youth organizations.
  - The Board of Directors of National VICA establish a plan whereby the National Staff will be automatically increased as the national membership increases.

Responsibility for action in these matters rests in the hands of: the United States Office of Education; state divisions of vocational education; teacher education institutions; state boards of education; the Board of Directors; VICA, Inc.; teachers; superintendents; teacher-educators; directors; supervisors; and VICA members themselves.

- V. Meeting the needs of people in target groups during the next decade compels trade and industrial educators to be concerned about other occupational groups than merely the highly skilled. The semi- and unskilled occupations must be recognized as a part of career education and developed within the T&1 framework through the following:
  - The establishment of guidelines for clearer identification of training needs of semi- and unskilled T&I occupations.
  - Enable flexibility in teacher certification to permit staffing of career education programs by T&I teachers.
  - The recognition of the total needs of various target groups and making provisions to accommodate them through

- a single funding source, team teaching, and a centralized locus.
- To pursue to the ultimate the cooperation of industry and organized labor in the educational endeavor of all target groups-skilled, semi, and unskilled.

Responsibility for action on these points indicates a need for a national task force to study the specific target groups for even further recommendations. Such a task force would be a legitimate undertaking of the Trade and Industrial Division with the American Vocational Association or the United States Office of Education.

- VI. Utilizing on-the-job training in trade and industry prescribes an important role for cooperative education in future educational processes. The benefit of cooperative (on-the-job) training will take on even greater prominence during the next decade through publicity, reduction of training costs, and the ultimate realization that all education is not found in institutions of learning themselves. The full impact of the worth of the cooperative method of education must become a reality through:
  - Acknowledgment that schools have no walls.
  - T&I education can be made more relevant by having an on-the-jobtraining component.
  - Special teacher-coordinator skills are needed to conduct cooperative T&I programs properly.
  - Career education at its best must encompass "hands on" experiences either of an on-the-job type or of a pseudo nature. And the contribution of T&I educators applied at this point may be the most significant.

The call for action on these points clearly falls within the responsibility of local, state, and national leadership found within public education. Support for the undertakings of cooperative and on-the-job training involves business, industry, labor organizations, and the public not only in concept but also in implementation.

- VII. Meeting labor market needs for trade and industrial outputs will constitute a major goal in the coming decade. The lack of a system of data collection and data retrieval has impeded T&I educators in predicting and mounting appropriate occupational programs. As a result, it is possible that some programs "fall short" of their full potential. To prevent this from happening it will be necessary to:
  - Secure accurate and reliable manpower needs data.
  - Base instructional content on occupational analysis.



8

- Use surveys as the basis for program selection, design, conduct, and discontinuance.
- Upgrade teachers in their respective technology and pedagogy.

Efforts in this direction call for action on the part of a variety of sources including: the Bureau of Labor Statistics, state vocational divisions, vocational advisory councils, and the like.

VIII. Advisory committees for T&I programs will play an expanded role in the coming decade and in the career education concept. It is believed the major purpose of career education is to develop the nation's human resources to the greatest extent, and this educational thrust involves but is not limited to Trade and Industrial Education. Consequently, career education should be the responsibility of all segments of the community, including education, government, citizens, labor, employers, and students. And in order to implement career education plans for which all segments of the community are responsible, each segment must actively participate. Therefore, it is recommended that any and all recognized, accredited, or approved Trade and Industrial Career Education programs be supported by and operate in conjunction with a local advisory council which accepts and carries out the following minimal advisory functions:

- Surveys, documents, and defines career education needs.
- Recommends career education plans and programs appropriate to meet these changing needs.
- Evaluates the continuing effectiveness of operation of career education programs.
- Establishes, maintains, and employs effective means of communications for the purposes of advising school authorities and informing state advisory councils and all segments of the community.
- Establishes sources and qualifications for career education instructional staffing.
- Maintains itself as a truly representative body of the local community in order to serve its continuing purpose.

The realization of such a recommendation will have to be implemented by local, state, and national leaders. But once realized, the involvement of young people, recent graduates, students, their parents, business, industry, and labor organizations must be assured to make advisory committees viable.

#### **PRESENTATIONS**

#### INTRODUCTION— CHARGE TO THE CONFERENCE

#### JOE MILLS

T&l educators are by nature and training continually charged up as I see it. You are ready for action. That is why you are here today because you are charged up and you are charged up leaders in the field of Trade and Industrial Education.

The historical background of this field is one of commanding action and missionary zeal in the vocational area.

T&I educators monitor programs with an ear to the ground and are prepared to signal needed changes and redirection.

I would point out to you that in 1966, through the AVA, we have a resolution that came out in reference to career education.

I would point out to you that in our national T&I conference in 1968, some of the goals that were established related to the concept of career education.

And, I would point with pride to an issue, in 1969, of the AMERICAN VOCATIONAL JOURNAL in which career development came through forthright.

So, the ideas that we're going to hear and discuss throughout our sessions have been proposed before, in some shape or form, but we have

had little action—little action from ourselves. So, I think this is the thing we want to do. The T&I role, as the real backbone of vocational education, is important. It carries the burden of the responsibilities for leadership—leadership in controlling the course of events to avoid being at the mercy of the events.

We have all, long ago, learned the value of trade and industrial leadership in the concept of communication through our advisory councils. We've learned the value of trade and industrial education through our effects upon legislation, and this is one of the things we expect you to do while you are at this conference.

We have learned the role of trade and industrial education in teacher education—in teacher training. We have been strongly involved in this. And, there are some changing concepts that need to be considered.

We have learned the role of T&I education in curriculum development, something we certainly need to work on more in the years ahead.

These are to name but a few of the basic elements of successful student and community services that T&I educators have been working on for many years.

Today's spotlight is on productivity, as I would like to call it, closely tied with accountability, a theme that provides additional demands on educa-

8

9

tional leadership. And I say to you that I think this leadership can come from our trade and industrial group.

The current hue and cry for educational relevance and specific job training to earn a living is certainly not a new concept to trade and industrial education. I firmly believe that this current educational emphasis is a challenge to each and every T&l educator. Now, is the time for us to extend our modus operandi—the way we do things. We have got to spread this throughout the educational establishment. We have the professional know how to take up the banner of career education, to extend our techniques of operation, and to provide a complete delivery system. And this is what we're talking about, the delivery system; a system that needs only to be adapted to the various levels at the areas and services needed.

We can lead the way for those to whom the world of work, job clusters, and multioccupational programs are strange worlds.

We have all had a wealth of on-the-job training in combating parent, community, teacher, and educational establishment resistance.

Let's put these valuable experiences to work now by accepting this challenge to implement these basic principles.

As experts in the field of trade and industrial education, your input at this conference can be the guidelines for the success of most progressive changes in the structure of education in the decades ahead.

You are going to hear presentations of various aspects of career education models. You will take part in group discussions concerned with T&I operations. Your participation can establish the operating goals and directions for the future of T&I in the total structure of education in the years to come.

Your direction, in these three days, will set the groundwork for the implementation of career education programming.

We are not going to be here, ladies and gentlemen, to theorize or philosophize. We are here to get down to the nuts and bolts of how to accomplish what we have been theorizing and philosophizing about for too long. Your job is professional leadership at its best.

Too long have we been looking to some other group to give us the leadership to pull us along. The leadership is here. So, I honestly say that if we put our mind to it we can come up with some direct goals from this conference and we will leave here with the concept that we are going to activate these goals: then we will have accomplished our purposes.

Joe Mills is the American Vocational Association's Vice-President for Trade and Industrial Education and Executive Assistant Superintendent for Vocational-Technical and Adult Education, Pinellas County, Florida.

### GREETINGS FROM AVA T. CARL BROWN

You have heard and will hear what you already know. Vocational education is facing its greatest challenge in the years ahead and probably its greatest opportunity.

So, it is appropriate, that you, the leaders in vocational education and specifically trade and industrial education, and I think they are one and the same as Joe Mills has implied, are gathered here to explore means of meeting our challenge.

I remember quite well a quotation used by our former state superintendent. When things got a little hectic and it seems that the public schools were being blamed for all the ills of society, Charles Carroll used to say, "The quiet dogmas of yesteryear are inadequate to stem the tumultuous tides of today."

Certainly, his words are appropriate today. We tend to think of the work of the American Vocational Association, your association, as being primarily legislative. And certainly, legislation is one of the most important aspects of its work. Without that, undoubtedly, we would not be here and certainly would not be here under this banner.

Unfortunately, most of us do not have much opportunity to be familiar with the way in which your AVA staff is called on by Congress and to see the high esteem in which your director is held by Congressional leaders.

Most AVA members have no opportunity to know the frequent crises which occur and which call for work by the AVA staff—sometimes to stem legislation which would be detrimental to the cause we serve and, at other times, to generate and support legislation.

Early in the summer, the AVA was largely instrumental in defeating a revenue sharing proposal for use of manpower funds, which did not protect the interest of vocational education and which might have set the stage for further duplication of efforts within the state and in local communities.

The AVA was instrumental in securing an additional appropriation under the Act of 1968 of approximately 75 million dollars this year, in spite of the fact that the President's budget requested a reduction in the appropriation. More recently, your executive director and his staff and leaders in the states, through their efforts, have been instrumental in getting the Senate to pass a bill, and then recently the full committee of the House Education and Labor Committee to report on provisions that establish a Bureau of Adult, Technical, Vocational, and Practical Arts Education at a high level in the United States Office of Education.

If and when these are adopted, we hope it will result in kicking upstairs our present associate commissioner, representing vocational education, whom you will hear this morning.

We hope this will take place and that it will



place him in a position where he can work more effectively for vocational education.

In recent months we have been hearing a great deal about a term applied to our field of work, "career education." We are highly pleased that Commissioner Marland is using the term and that he is applying it, primarily, to vocational education, because we in vocational education have long been concerned with career development of youth and adults.

As Joe Mills mentioned, we have used the term and its meaning before. It was in a resolution adopted by the House of Delegates of the AVA in 1969.

During this conference, you will have an opportunity to further explore the broadest possible horizons of development of the human potential, whether you call it vocational, technical, career, or occupational education.

During the past year, the AVA, in its role of protector and developer of vocational education, has sponsored four other institutes such as this. This is the fifth institute and two others are planned. There will be one for health occupations and one for distributive education within the next year. This is certainly a most appropriate activity in the further development of our leadership potential.

Now we must prepare youth, not only for work in a changed society, but also for work in a continually changing environment and society.

The cutting edge of technological change lies in your area of responsibility. Because your work is most important to the future vocational education and because you represent by far the largest program area in vocational education, it is with a great deal of pride that I bring you greetings from the total membership of the AVA.

May I also say that while we face challenges, I believe we are entering an era in which vocational education will come into its own as a major component of any realistic program of education for youth and adults.

T. Carl Brown is the American Vocational Association's President.

## THE ROLE OF TRADE AND INDUSTRIAL EDUCATION

MICHAEL RUSSO

Thanks to all the people who are here today, because I would have to preface my remarks by saying you would certainly be letting me down in the area of T&I, if you simply stood here today and accepted verbatim as the gospel, anything that any of us may be projecting. If so, Trade and Industrial educators have changed since I worked with them last, because I can remember when representing the Washington office was fair game. I can remember when we had the North

Atlantic Meetings, the United States Office of Education itself was fair game.

So, we will start out from that point of view and try to recap quite rapidly a new program called career education. In response to the other staff members that are here, we are most thankful to be able to participate in this meeting.

I would like to go quite rapidly through what I call an historical recap. I say quite rapidly because what has happened is the past, and I do not think we can take time to look back over our shoulder to see where we were. We had better start looking in terms of where we are going and how rapidly we can get there. If there is a need, and many of us think there is, we had better do it immediately.

When mentioning historically, I keep thinking in years past we have always been faced with some sort of national problem in vocational education. We have always risen to meet the occasion and T&I has always come out in the forefront. I am not saying that strictly because of my T&I background or because I am addressing a T&I group. But I do say this in all honesty, because I think that this group—you people—represent the cutting edge of what has been able to move vocational education to the point of prominence that it has today. If we intend to maintain that position, it is up to you people to continue to move forth with this.

When emergencies came up in the country, you people met the challenge and did the training. You rose to the occasion; you did tremendous jobs. You are still doing it today, and now we are in the midst of a terrific, evolving revolution in terms of our society. Some people like to call it another Renaissance period. This may be. If it is, what we are asking you people to do here in the next few days and after you leave here is not only to determine where we are and where we are going, but also what you will implement on going back to your respective areas. I do trust, as Joe Mills said this morning, that following this you will not simply go back and say we had a very good meeting, I met so and so, and now we will go back and continue on our merry way.

When we talk about career education, I think the point that I would like to stress is that we are not in any way talking about any infringement on the basic principles for which we stand. We are not implying lower standards in the preparation of students for basic entry or the retraining that we have been famous for. What we are saying, and saying quite clearly, is how we can better prepare the students for the five and six times that they will have to be trained and retrained in the course of a life span. How can we do it as effectively as possible? How can we eliminate as much as possible the traumatic experiences people go through when technology comes about-when they find the plant that they are working in closing down? Or their inability to cope with newer methods of technology? These are the things that we are concerned about. And if anyone goes



out of here in the next two or three days with the feeling that career education is being generated to limit the scope of our basic skill training, then we have failed to get the message across. We have missed the mark entirely. I want to set forth in this frame of reference as we continue on through.

When I look at this-when I look at the general scope of where we think we should be moving in career education-1 use a term in our office quite often, that everyone of us must become a Now, some of you will say "I am a "ma nager." manager." But I am saying in greater depth, in greater detail, than you ever experienced before. As a manager you have to go beyond the programmatic aspects as we devoted ourselves to many times in the past. You must become a manager in its truest sense, so that you understand all the aspects, all the educational problems; and you must also understand and be extremely cognizant of the world of work and all of its problems.

Now some people say, "We must become politically oriented." Being here in Washington, I am not saying that. It has a different connotation here. I use the term "managers." Manager to me, its plural sense, would imply a certain feature of political orientation. You must be aware of this and you must get involved in it and you must understand what is meant by it.

As we start going through this, I keep asking, "What are the people in T&l looking at at the present time, and how deeply involved should they be?" When I say this I keep thinking in terms of preservice and in-service training. I also think in terms of do we know our trade—and I'm implying that we do not.

I am saying that we need a detailed analysis of the trades, not only what it takes to cope with the skills involved, but also where is our trade going? What are the changes we see in the near future? Are we presently teaching in such a way that when we turn a student out he will have a definite marketable skill? Must we change some of our methods? Are we analyzing the manpower reports that come out from the various departments telling us where the needs are going to be? Are we looking beyond our local need area, our present environments? Are we thinking of the mobility of our population? These are the things that I think you have to look at. I find quite often, for no other reason than that we get so deeply enmeshed in our program, that we do not take the time to look beyond what we are presently doing. I grant you that in most instances the programs as they are today, in many cases, will serve the purpose

But, if you, as managers, are not planning what is going to happen two or three years from now, you will find yourselves faced again with the situation we have been faced with relative to the construction of our area schools. We waited so long and it got so far down the road, that we had a

tremendous catch-up job to do. We were not looking far enough ahead.

The reason I bring up the area schools at this point is not because of my tremendous involvement, but because, to me, what is happening today in career education is sort of capping off something that we started to initiate back in 1963. We were talking about the area school concept then, if you recall. We fought for it and shouted and made many of you run for cover when we were talking about schools without walls. We were intermingling departments, if you recall. We came out with different values for utilization of our schools than we had ever seen before. We kept saying 'Utilize the services of other agencies and other departments in your schools to impact upon the students you are serving." You know the basic groundwork was being laid for career education then. Now we are capping it. We are capping it by saying "Take full advantage of all the expertise that's in that building.'

We need all the help we can possibly get because we are in business for one thing, and one thing only, and that is for the student. Now I realize that someone would say, "Well, we're in business to train the student to give him a basic skill." That is true, but we are basically interested in a humanistic attitude in that student as well as the skills we develop. Consequently career education fits into this quite nicely when you look at the total program we're trying to move.

I find myself thinking—if I do analyze what the labor market shows, and if I do analyze where I think the weakness is, and if I do analyze what the programmatic changes are going to be about—how can I as an individual in a T&I department, as a manager of the department or as the instructor of the department, implement change? And then immediately I find that I cannot do it alone. None of us can do it alone. Consequently, I say to you ladies and gentlemen, "Look carefully at the expertise that surrounds you."

What we are saying in career education is that you in vocational education happen to be at the crossroads. You happen to be the vehicle, the vehicle that is going to be used to implement career education. But you are also just a very small portion of the entire educational spectrum. So, consequently, you must rely on the full expertise that surrounds you in the community and the schools in which you serve. When they talk to me about how much of a staff does school "X" have, I immediately say, "How large a community are you in?"

Let us at the present time address ourselves to what we normally find within the walls of a school building. I find, as far as lam concerned, in many instances that we are not utilizing the services of our academic colleagues. Nor are we utilizing the service of our guidance people. Immediately, I hear the conversation arise such as this: "Our academic colleagues do not understand us." Then I say, "Fine, do everything possible to get them to



understand us." You say the guidance people do not have time. They are concerned primarily with the placement of college-bound students.

Once again are we communicating? Are we explaining thoroughly or are we working in isolation? I would immediately say it is not a one-way street. And I am most pleased to hear the Commissioner urging the staff in other academic areas to assist us in moving across the entire educational spectrum.

You are not doing this alone, and we are not in vocational education here in Washington doing it alone. We are working very closely in coordination with these people. I keep probing deeply into the offerings. There is one thing that I would like to stand on and I say this very clearly. This morning as part of our presentation, as rapidly as we had to put it together, we addressed ourselves at this time to the area of transportation. Perhaps we had better tell you the reasons. One, we felt that perhaps this was an area that all of us are quite familiar with, whether you are actually teaching it or you step out in the street and see and smell it. We know the things that we are concerned with. There is going to be an International Expo out at Dulles dealing with the area of transportation. We will have people from all over the world here a year from now. They will be looking very closely as they travel throughout the length and breadth of this country at the area of transportation and how we teach it.

When we worked on career educational models, we developed 15 clusters, none of which is cast in concrete. None of us feel that the philosophy is so set that we are not willing to change. If someone comes up and shows us some of the strengths and weaknesses and the adjustments we have to make, we will make them. In fact, each and every day we are constantly striving to make adjustments, changes, and corrections, in order to implement this. Part of our contractual procedures in curriculum has required the contractor to take a good look, a good, hard, look. The contractor's first step is what we always call job analysis, and all of you are familiar with that. As they go through this analysis, they will restructure the curriculum and they will restructure the 15 clusters.

So please, ladies and gentlemen, when we present these to you, it is with the full understanding that they are very basic. They are in a draft phase and they will be going through many additional corrections before we feel that we have a product we can stand behind and say this is it.

As I look into the area of transportation and I look around the room, I want you to do some soul searching of your own. When we started, all through the clustering, and specifically the one in transportation, we thought of land, sea, and air. Having been in T&I, I know what programs we are teaching. I am actually amazed at how little we have been impacting on some of these other areas of transportation. It made us take a good, hard look at this area. We said it is true we are not teaching as much in land, air, and seas, as we think

we are. This is what we are seeing from these clusters. It is our hope that when the clusters are made available to you prior to leaving here, you will take a good look at them.

What we are saying is, expand your horizons. I would like to give one illustration. Recently, we were trying to promote one particular area, the area of plumbing. You know the basic related information they have to have and the type of equipment and material they work with. It was most amazing to us that in the Dictionary of Occupational Titles code there are 13 codes in this particular family of clusters. Every one of them had practically the very same skill in terms of the tools to be used and materials to be used with a slight addition or spin off that students could go out saying, "I have the capability to enter I3 areas to fill my basic area of interest rather than just going on with one," because he is being taught and trained in a broader concept. This is what we are trying to get across, and that is a major problem to cope with.

How do we get this across? How do we do it without watering down our program? I know this is a problem that is constantly running through your minds. I am also very much concerned with our methods of instruction. Now, when I say methods of instruction, I mean this: are we utilizing people in supporting roles as effectively as we should? Are we using the community support as effectively as we should? I might just throw this out for question. Quite often, we find that when we become so immersed with what we are doing, we fail to look beyond the four walls that we are presently teaching in. I am saying to you that even though we had area schools that were basically with no walls within them, now we are saying the entire community is our school.

I throw this one question out to you from this point of view. Many of our youngsters are being turned off for two reasons. One, the program is not meaningful to them or, secondly, the person is not being challenged. Seriously, what I am concerned with is that we still have a tendency to think of every person as a person fitting into a scheme of our own, and not looking upon him as an individual. I challenge you from this point of view. Is it necessary for every single program in vocational education to be taught for the same number of periods for the same number of years in order to come out with a basic skill?

I am not saying the Washington office is saying change it, I am simply saying take a good hard look at this. Is it of that much importance to us in some cases to constantly repeat the manipulative operations as happens in some cases? Too often we gear our programs to meet the needs of the lower level, and do not challenge those who have a capability to move along rapidly. I think that one of the things I see in the future is a computerized control system where students can enter and exit without penalty.

Take a look at these things. These are the things that are going to make your decisions for



you-help you make your decisions. Talking in terms of complete coordination, programmatically, I mean that in all the truest sense throughout the entire school system, we want vocational students to become involved in every phase of that educational system as well as any other student in any other program other than vocational. Here we are completely involved in the entire community and the entire educational endeavors of the schools that they are in. And I'm sure that they are better citizens for it. They have a better understanding of what they are doing, and they are still coming out with a basic entry skill. It can be done and we must do more of it. If we are only teaching for the 20 percent, then let us try to meet the other percentage. Let us turn every youngster out so that he has a great deal of pride and accomplishment and he knows that he has his place in the sun according to his ability.

I turn around, and I talk about preservice and in-service teacher training. I talk about the curriculum development. But let me linger on curriculum development just briefly. I was somewhat concerned when this summer I was approached by a number of people who were going through a certification phase. The state required "X" number of periods of hours put in in order to be certified. In talking to the individual, I was more concerned to hear the following comment in our discussion. First, I asked him "What are you doing for the certification?' He said, 'Well, I'm revising my present program.' I said, "What is the program?" (And by the way, it was not transportation.) I asked him how often he did this and he looked at me and said, "Everytime I need to be certified." How many changes do you make, I asked. "Well, not too many," he answered. I asked to take a look at it, and told him that rather than do this, why didn't he take advantage of what he had already been doing and pull out what he had done, take the material and look down the road to improve his program for that point of view rather than from certification.

Ladies and gentlemen, I hope we are not putting our people through this simply to give them a certificate of endurance, because that is what is happening in some cases. I trust that it does not happen too often. I hope that our people in preservice and in-service have now come up with plans that will have our people project well down the road beyond just a trade area. To go back just briefly, I'm sure that when that gentlemen that I was talking to went through this preservice or this in-service training for certification, I'm certain he looked down the road, but I hope that you look down further and broader after you get through with some of these sessions here.

I am also concerned with the fact that many of you have developed some excellent materials, but we have to find a more national dissemination. And this is part of the problem that Dr. Worthington is faced with and why he is establishing a national center for material dissemination in

our bureau. We know that some of your states have developed excellent curriculum material and we want to find some way of capitalizing on it. The past two years we have made a complete study of available state curriculums. We can tell you what state is developing what curriculum and what is available. Let us take advantage of this knowledge and move forward. Let us not duplicate the effort. We do not have time; time is something we do not have the luxury of. Consequently, we have to take the full benefit of utilizing all of the expertise nationally in order to have an impact on our areas.

I would also be amiss if I did not say that one of the challenges I see for you here is in terms of the adult education phases. We have a tremendous responsibility there. As T&I instructors, decision makers, and managers, I think it is up to you to make the necessary adjustments in order to take advantage of your community out there and to encourage the general public to come into your schools.

We have to be very understanding. We must be very willing to bend our program offerings in order to give all of the remedial background required to our adults in order to bring them up to the stage of efficiency that we are striving for.

We must make maximum utilization of our facilities. In so doing, I challenge you from a point of view that one of the biggest stumbling blocks we have had in the total utilization of our facilities is the "age old saw." Not more than one instructor can utilize the shop properly because if anything is missing the other fellow did it. If anything is broken, he did it. It never happened while I was in there. How can we develop the concept within our instructors that this is not your shop, this is not your lab, and this is not your classroom? We want you to have 100 percent respect and still have the dedication but share with others. I know some of you say if you ever have the answer, let us know. I am simply asking you for help; I do not have the answer. One of the reasons that many of our schools are not being used 24 hours a day is because of this. We must eliminate this theory and this philosophy and move on quite rapidly.

In conclusion, I would say I hope that you will be very understanding as managers. Be very diplomatic in your approach to all of your educational colleagues in the community. Be extremely tactful but forceful. You are the educators and you know where we should be moving. You should be the interpreters to your community but you must also be the initiators and not the reactors. For years we have been talking about developing standards and we are still talking about doing this. Ladies and gentlemen, all I say to you is that I ask you to have a great deal of foresight. Look down the road. Make detailed studies and analyses of where we are going. Be extremely knowledgeable; run out front. Be the leaders; lead your community down the educational path. Be initiators and not reactors. Thank you.

Michael Russo is the Acting Director of the Bureau of Adult, Vocational and Technical Education. He had his education in Pittsburgh Teachers' College and in the University of Vermont. He has had background and experience in the construction trades, held teaching positions within vocational education, and has been a teacher trainer and a state supervisor.

# INDUSTRY'S CONCEPTS OF TRADE AND INDUSTRIAL EDUCATION IN THE DEVELOPMENT OF HUMAN RESOURCES

#### LINDON SALINE

Ladies and gentlemen. Being down here tonight is a real joy for me, because Washington is one of my favorite places, and I have lived here two different times in my life, so I know what I am talking about.

Also, as I had this wonderful dinner tonight, I felt great regret that I only have one waistline to give to vocational education.

You know you have been told about, as part of my introduction, the things I have done, and I have done a lot in my life. But I learned something a week or two ago that puts it in more perspective, because I really have not done as much as I thought I had done. Compared to Mozart, for example, who when he was my age, had already been dead for 14 years.

There was one other thing that was said that kind of, on reflection, disturbs me a little bit. It was said I was an expert on education. I think you would know that the derivation of that word "expert" isn't really a compliment, because "ex" means it is a has-been, and a "spert" is the drip under pressure.

You know, I spend a lot of time with educators (being in that business) within our company and have the pleasure of working with educators of various kinds throughout the country and throughout the world. And, although I love educators very much; and, although I do have an opportunity to spend a great deal of time with them, I always approach an assignment, as I have tonight, with a little bit of apprehension.

I was discussing this assignment with a couple of people on my staff, and one of them gave me some advice. He said that he would recommend that I approach this audience tonight, like porcupines making love. I said, "Now how is that?" and he said, "Very, very cautiously." And as I was thinking about this assignment tonight, I asked myself quite seriously why is it that I am really interested in trade and industrial education? As I thought about it, I had to think about it from several roles that I occupy in life.

First of all, as a business man. Second, as a parent; and third, as a citizen of our great country. As I thought about the reasons I am interested in trade and industrial education, it seemed that it did not make any difference from which viewpoint I approached the question as the answers came out fairly straightforward. I am going to share a few of those answers with you tonight. I am going to even have the temerity to make some suggestions on how we might improve or move ahead more rapidly in our vocational education work, and then, perhaps even leave a challenge or two with you, to face as you look ahead to the standing role I believe T&I education is going to play in our society in future years.

First, one of the reasons I am very interested in trade and industrial education is that we seem to be in a society that is really made up of a degree culture. We have some kind of a fetish about degrees. And, I believe that with this kind of fetish we are short-changing many of the young people in our society. Somehow or another, over recent years, we have allowed the attainment of a degree to have an unrealistic meaning and value to people-both young and adults. I believe that there are many young people who would be better served, personally, and that society would be better served if, indeed, they did not do the conventional thing that we do so often today. Namely, go to high school; go to college; get a degree, and then go to work. I believe that people are made up of many different interests and capabilities and that our educational system is not equal for those who would be better served by other than our normal kind of higher education

The dimensions of education can be described in many ways: along the frame work of time, age, and maturity and also along the idea of theory and laboratory kind of experiences; the framework of people and ideas and things; and along the framework of manual dexterity and conceptional thinking. I believe that we will truly have a good, equal opportunity educational system in this country, when we have true and equal opportunity, so that people can pursue what best fits their particular, unique needs, and do it with the blessing and enthusiastic support of society.

Second, another reason that I'm very enthused about technical, vocational, and industrial education is that we live in a technology-based society that can only function when the products and services we use in this society are operating properly. Many individuals need to be trained in T&I to just simply keep our society functioning on a day-to-day basis.

This evening we were talking about the problems of running a home that is based on technology, and I related an incident that occurred just this fall, in my own home town, New Canaan, Connecticut. There is an adult program that is offered there, this fall, for women called, "Plumbing for Housewives." It certainly points up the



need for a great deal more service and a great more capability, in such every day necessities as keeping our homes running.

Third, the reason I am interested in T&I education is that our T&I graduates, I believe, are going to be absolutely necessary if we are going to help to straighten out our economy.

The real problem in our economy these days is that we have lost the knack for increasing productivity. In the service-oriented economy—the way we are tending to be—we have to give more and more attention to improving the productivity of both the manufacturing segment of the economy, as well as the services end of the economy. Better trained T&I people are going to be necessary if, indeed, we are going to be able to achieve the kind of increase in productivity that we will need if the economy is going to continue to be a growth economy; a viable economy, in the years ahead.

Now, a fourth reason I am deeply interested in T&I is perhaps based on a little bit more of the theoretical point of view than what many people might regard as appropriate for a T&I involvement. It has to do with how we are going to provide young people in our society with a real means for finding their place in a productive way, in our society.

There is a very important theory that is being evolved now that has to do with the prolonged adolescence of our young people compared to previous generations. It has been pretty well documented in the life sciences that the age of puberty now occurs about four years earlier than it did a 100 to 125 years ago. On the other end of adolescence, we have extended the period through almost four additional education years beyond the secondary level, so that we now have a prolonged period of adolescence that runs from 11 to 12 years up to 20 or 21 years of age.

During this period of time, the theory goes, educational experiences and the life experiences of young people are considerably greater and more advanced than they've ever been before. But our society has not adapted its traditions and its mores to be able to accommodate this greater intellectual and emotional capacity in young people. And, therefore, the theory further goes that young people in trying to find their niche in society, as productive members of society, find themselves locked out of society, and then evidence their frustration through protest, disrespect for authority, and other things that we sometimes associate with young people today. I believe that all young people, regardless of whether their ultimate career goals are going to require legitimately going on to four-year colleges or beyond, in a professional career, would benefit from real T&I educational experiences, which would provide them with a basis for making constructive contributions to society at an early age in life. Perhaps while they are in their high school years-certainly after high school-before they go on to college, and then even while they are preparing themselves for their

life professional activities, some T&I education would be appropriate.

Now, these are the kinds of reasons that I am very interested—in the selfish way of the businessman, as a parent, as a citizen—in T&I kinds of education. But we then ask ourselves the question, "How about doing the actual work of providing T&I education?" Yes, we can certainly be enthusiastic about the traditional ways this has been done, that is, in high schools, in community colleges, and even in business, industry, and government. However, there have to be more than what the traditional ways have been if we are going to really meet the responsibilities and the challenges that are going to be facing T&I education in the future.

Let us look for a moment at what is a career and see how T&I education might relate to these concepts: first of all, a career is really made up of a series of jobs. Some people have only one job in their whole career. Others will have a host of jobs. Some of these jobs will be related, one to another. Occasionally, people deilberately set out to design for themselves several different kinds of careers within their lifetime. But, getting that life job depends on the individual's capability; depends on certain attributes that he has such as his interest, his aspirations, his motivations, and the energy he can give to the job. It depends on the special knowledge and skills that he has; and it will depend on the kind of experience that he has along the way.

All of these things are important, and T&I formal education can help nearly every one of these areas. But, T&I education can help only if it has the opportunity to help. And it will really only have the opportunity to help in those ways if we have the right kind of guidance to give to our young people. Perhaps, even more importantly, the right kind of guidance to give to parents so that they can help young people decide on what is an appropriate lifetime career for them and what is the appropriate kind of education they should have to meet and fulfill their ultimate destiny and responsibilities.

At the present time, I believe that the weakest link in all of T&I education is the lack of appropriate guidance at the early years of junior high school or high school; because, if we cannot help young people and their parents appreciate the opportunities and the glory that can come from T&I education in service to the individual and to society, then we will really block out many young people from ever meeting the opportunities that they had through T&I education.

Now, T&I education has a continuing role to play all through life. It really serves three major functions, as far as I view it:

First, in preparing a person for performing the current job he has more effectively.

Second, in preparing an individual for a promotion from the job that he currently has.



Third, in preparing an individual for changing the field of his work, or for his initial job in industry, business, or the government.

We are all well aware, and I am sure your conference is considering this, this week, that our society is a fast changing, fast moving society. I look upon our society as moving towards one that I call a total learning environment. We are fast moving out of that simple life where we had a period of education, a period of work, and a period of retirement. Education, work, retirement, the job leisure time, civic responsibilities, clurch work are all welding together. It is less and less distinguishable as we look at our individual lives and certainly as we look ahead to the changing society that is coming and that we're already living in

T&I, in this kind of changing society, I believe, has a particularly important role in making sure that individuals are being given the opportunity to develop new interests; to develop new skills whether they be for doing their job each day, or whether they be for leading a more productive life in their community in their leisure, or in other facets of their entire lifetime.

It is all part of the theory of life-long education. And T&I has a major role to play in that. But, again, we can ask the question How? I wish I had some magic answers to share with you tonight, but I do not.

I do, however, want to share with you one concern that I have and one hope, regarding T&I education. The concern I have is not limited simply to T&I education, but it is really in all of education, and it may be more important for T&I because of this unique role. This concern has to do with the cost of education. The cost of education, in my opinion, is moving to the point where all education including T&I, is in real jeopardy, and this is at the local, state, and national level. I believe that the costs of education are moving to the point where we might well have an economic and political crisis, as taxpayers continue to revolt at new bond issues and at continually rising budgets for education. The problem, I believe, is one that only educators like yourselves and administrators and faculty people can handle. This has to do with giving attention to educational productivity.

What is the output we are getting? What is the quality of education we are getting per unit of cost? We have to work on improving the output and the quality. Let's set ourselves a simple goal. Let's keep the quality where we are now and see if we can't lower the cost to achieve even the quality we now have, which really is magnificent. This is going to require hard looks on the part of people like yourselves, because here we are talking about student-teacher ratios, about utilization of utilities, and about the utilization of faculty. These things are tough kinds of decisions to make because, indeed, these may be the tra ditions or the myths that have been with education for many, many years.

It is a deep concern I have with T&I education, particularly because by its very nature it can tend to be a very extensive kind of education, due to the kinds of equipments and other experiences that go along with this kind of education.

How do we go about that? I would just suggest that you list (and you are probably doing this during your conference) new thoughts and new ways to approach it. Some of them probably are not new; but I hope that you will really probe into areas like the feasibility of year-round education, and the feasibility of new kinds of set-ups, like schools without walls.

Now, the hope that I have for T&I education (and here again, I'm talking about not only T&I education for you people as professionals in that area, but I'm talking also to myself as a businessman, as a parent, as a member of government, and as a citizen) is that T&I education and all employers will develop a creative partnership that will produce more effective T&I education, which will help to build for T&I an image of social acceptability. This will, in fact, tend to reduce the unit cost of T&I education and will provide constructive and creative channels for a real working partnership to focus on planning, on the visitations that might be possible between schools, on employers, on adjunct faculties, and on the use of common facilities.

I guess that the summary challenge that I would leave with you can best be based on a quotation from George Bernard Shaw who once said: "Some men see things as they are and ask why? I dream of things that never were, and ask why not?"

Let us all-trade and industrial educators, employers, parents, and citizens—do just that, in relationship with T&I education. Thank you.

Lindon Saline did his undergraduate work at Marquette University. He did his graduate work and his PhD in Optical Engineering out of the University of Wisconsin. He has spent the majority of his time in industry, engineering, and manufacturing. His unique position in General Electric is to know the educational and training needs of a company that employs over 300,000 people.

## POLITICS AND VOCATIONAL EDUCATION

#### **KENNETH YOUNG**

I notice the program mentions talking about vocational education and politics. I think that is a good title and something that should be talked about. All too often, people say that education and politics do not mix; I really do not think that is right. I do not look upon politics as something that is seamy and something we just have to live with, anymore than I look upon a vocational educator as a guy that teaches the little boy to



make the pump handle lamp for a Christmas present. They are both bad images.

Vocational education needs more recognition that it is not a dumping ground for the kid that is not going to make it to college. That is part of politics. It needs more funds; that is part of politics. It needs better equipment, it needs better paid teachers; all of these things are part of politics because someone has to make the decision on what our priorities are going to be in this country. Somebody has to make the decision on who is going to share the resources.

In our system, our democratic system, that decision is not going to be made just by vocational educators or any other educators, it is going to be made by elected representatives. So that means you people have a job of putting an input into the elected representative, letting him know how you feel and what your needs are and what you are doing. That is the name of the game. That means getting the right kind of elected representatives, getting people that are going to listen, and getting people that are going to be responsive to needs.

I have been a lobbyist for the AFL/CIO for six years, and it seems to me that in that time there has been an increase in the political activities, as I would phrase it, of vocational educators. I think that is all to the good. AFL/CIO has liked that. We think it makes a lot of sense because we have spent a long time supporting education and especially vocational education. We have always considered vocational education an area of special concern. We have considered all education as one of our major objectives.

When I first started on the Hill, I went into see a Congressman who did not have many labor representatives in his district. He asked me why I was visiting him on an education issue and I reminded him that one of the first picket signs that was ever carried in this country was a sign that called for free public education for all. We are not newcomers in this thing; we have always been for education.

In the last six years, I have worked in such areas as Vocational Education, Elementary and Secondary Education Act (ESEA), higher education, impact, help to the library; and I think along with people like Lowell Burkett and Mary Allen, many of us realize that it is one thing to get legislation that authorizes programs and something entirely different to get the proper funds. All of us have seen the fiscal crisis that has been hitting the cities and states. We have seen the effort to try and get more funding at that level and what has happened. Sales taxes have reached almost a peak and property taxes are at a peak. The local bond issues that get lost in elections have been seen by us. I think all of us have come to the recognition that the federal government must pick up a greater share of the education budget. So while we have worked on authorizing legislation and have been able to get what I think is good authorizing legislation such as the 1968 Vocational Education Act, we have been blocked because we have not been able to get the proper funding level.

As we work with the Authorizing Committee, which is basically sympathetic to programs put forth in the field of education, and the Appropriations Committee where they always talk in terms of budget, I think we have come to realize that no one group in the educational field can really hack it alone. You cannot get your money all by yourself; you have to work with other groups.

I think we have sort of taken a leaf out of the political book because all of us watch the Republicans and Southern Democrats form their coalitions. We have watched farmers and city people form coalitions where the farm people will vote for urban programs in exchange for votes for farm programs.

So a few years ago we set up the Emergency Committee for Full Funding which is basically an organization of all types of education groups. The main objective of the Full Funding Committee was to fight together for more funds. By Full Funding, we meant trying to get the appropriation, the actual money granted by Congress, to come close to the program level authorized by the Congress. So we had people from Impact Aid and we had the higher education people, librarians and AVA's representatives and the Title I ESEA people and every group that we possibly could. The National Education Association was involved and the American Federation of Teachers was also involved.

We tried to get together so that we could get a group that could work together and say to Capitol Hill: "Look, education is in a crisis; we need money and we're going to stick together. We're not going to get paired off; we're not going to have somebody say, '1'm for higher education, but I really don't think there's much good in the ESEA.' or '1'm for schools, libraries, but I just never have liked vocational education or the Impact Area Aid people.' "

When we got this coalition started I remember that many of us decided then what the first step was going to be. First year, we were going to start out and if we could just worry the Appropriations Committee members just a little bit maybe we could nudge them a little more and get them to be more responsive and closer to our goals. That first year things moved along pretty well, and as some of you may recall, our little nudge ended with the President going on television and vetoing the education funds. I do not mean that we liked that; we did not. We did manage to get considerably more money than we expected to in the start.

We have tried to make it a bipartisan effort. Of course, it gets partisan when you take on a President's budget and try to bump his budget. As I recall, the three years the Emergency Committee has operated, we estimated that in the field of vocational education alone we have approximated increasing the funds about a hundred million dollars each of those three years over the



President's budget. Now we still have a way to go on all the fields but I think it has been well worthwhile. It has been worthwhile for vocational education as well as for other programs.

There has been another gain from the Emergency Committee; that is, again we have learned to work closely together and understand each other's problems. Last year the Congress started working on its Comprehensive Manpower Act which involves vocational education. We in the labor movement also feel it involves us. The states certainly feel that they're involved; and I can guarantee you the League of Cities and the Conference of Mayors think they have a piece of the action. For the first time last year, many of us in the outside groups started getting together again and trying to reach agreement on our common problems and trying to come up with the type of legislation that we thought would be the best for the country and to be in a position to talk to the Senators and the Congressmen in terms of what would be good.

Well, unfortunately, that bill led to a veto. However, as a result of that and I think a direct result, this year we passed the Emergency Employment Act providing public service jobs. Now legislation is again being drafted on Comprehensive Manpower. In that area Mary Allen from AVA, a representative of the League of Cities' Conference of Mayors, and I have been meeting frequently to try and come up with ideas and proposals that will really meet your needs and the problems as the mayors and city and county officials see them and as I see them, and then we talk to our own constituents. There again, it's coalition politics because when the three of us can sit down together and say to a member, "This is the type of program our three groups believe in," they're looking at some political muscle. We don't have to go in there and flex that muscle; they know who we represent and that is all to the good.

This is the kind of coalition that makes sense. In my experience in dealing with Lowell, Mary, and you people, I know where you have political strength, whether you want to talk in terms of having it; I know that when you people turn on in the south and rural areas, those members are responsive. We don't have power there. I know that when the League of Cities and Conference of Mayors start working in the big cities they can get results. We can do pretty well in some of the northern and urban areas ourselves. So between the three groups, when we do agree, we do have a coalition.

I'd like to talk about some of the problems that are facing all of us on the Hill in this area. One of the key problems is what level of government is going to make the decisions? What I mean by that, I guess, is that the Administration has sort of bowed to the phrase of power to the people. Administration says in effect, "We shouldn't have the federal bureaucracy running the programs and making all the decisions." But then a funny thing happens. The Administration says, "Let's get out

of the federal level; let's go to the state level." But it makes it pretty clear it doesn't want to go below the state level.

Then you have the liberal Democrats and you have organized labor and people like the League of Cities Conference of Mayors and they say, "Well, we really don't trust the state. We like the federal government having a strong guideline and strong regulations. We want the federal government calling the shots but if they do not do it, we want to bypass the states and come down to the cities and the smaller areas." So, time after time we get really hung up in the debate over what we call the "prime sponsor"; in other words, who is going to call the shots on a program.

You find people moving around. You find Republicans saying, "Let's have a state plan." And as soon as you say state plan, civil rights people say, "We don't want any part of a state plan. There may be some states where we wouldn't mind a state plan, but there are a lot of states where we want no part of a state plan."

People that I represent really don't like too much state power because in most states, we do better having a voice at the city level. You can imagine where the League of Cities Conference of Mayors want the power.

So, this is a problem that has to be worked out. There must be a way of solving this so that the states are not cut out of the action, that the cities or the counties are not cut out, and in my own feeling, so that the federal government is not cut out. I don't happen to believe that the federal government has a right to raise the taxes, get the revenue and then say, "We're not going to decide how it's spent."

In a way, I think the vocational educators are in the middle because you have your state relationships and state programs. At the same time, and I must say this is just my own judgment, I feel that in many cities you don't have the best relationship with City Hall. I suspect that some cities feel you're not doing the job you could do. I feel in other situations it's because of state operations and not because it's vocational education because the city officials are constantly fighting with the state government for what they consider to be their share of the funds.

I don't think it's any secret that there are many liberals in Congress who feel that vocational educators really are not being responsive to the needs of the disadvantaged and vocational educators are not doing the best job that could be done in reaching the hard to teach. There are others who feel that we have probably had enough of training for awhile, that maybe what we need now is jobs, and that maybe the real push should be for job creating legislation instead of training-type legislation. We feel that way to a certain point; that's why we work for this emergency employment legislation.

You really ought to zero in on jobs in the public sector, for that's one of the growing areas.



It is not just career, white-collar, business-type jobs but public service, career jobs.

There are some on the Hill who feel that vocational educators do not work closely enough with community groups, that they have too heavy an emphasis with employers and the United States Employment Service. Now do not misunderstand me, I am not raising criticism; I am trying to describe some of the problems that I think need to be faced in this area.

Now if vocational educators are doing a job in these areas, I am raising the point of, do their Senators and Congressmen know it? Do they know what they are really doing? Do they realize where vocational education is different from other education? Do the vocational educators talk to the opinion makers in their community? Do those people know what is happening? Or, is it really just the business people who usually are the ones who come up with the jobs?

I think people on the Hill, especially the Authorizing Committee numbers, sometimes wonder whether vocational educators are really using the tools of the 1968 act or whether basically they are following the same old program. Again, I think this is a place where you people have a message to tell. You have something to tell these people; explain it to them! I do not think it's just enough to say, "Well we've been starved on funds. We haven't had enough to get going." They hear that from everybody.

I think the most important message that vocational educators can give to Senators and Congressmen is, unlike some of the other educators and I do not want to sound anti-intellectual when I say this, vocational educators just do not look down on jobs that do not require college degrees. We do not happen to believe and I am sure you do not believe that all the intelligent high school students go to college because we feel that this view just degrades the whole dignity of work. And I think it leads to a great number of drop outs because if a student does not understand the relationship between the classroom and the work world, certainly, there is no reason for him to stay there. And, if he's going to be in a school where most of his teachers look down on vocational education as that other place, why should he not drop out? What reason has he got to stay there? He's already a second-class citizen. Instead of that relationship, what we need, and what Congress has to understand, is the concept that guarantees the individual the opportunity to learn skills in the occupation of his choice and have the biggest possible advancement according to his abilities.

I'm probably talking idealistically, but I think the goal has to include all the disadvantaged and I mean by that the economically, the physically, and the mentally disadvantaged. I think vocational education must provide the tools to overcome the barriers of poverty and discrimination caused by a limited education. Now, there's no question in my mind that to really do that kind of job, one needs more money; and as I said before, getting that

money needs political muscle because that way vocational education can meet the challenge and can make its programs work.

The problems that we're facing in this country, whether it's in the field of education or anything else, are just too immense today for any of us to be uncommitted and to sit back and blame someone else. We in organized labor are committed. We get into a lot of them; we win some and we take a lump sometimes. And there are times when you people and everybody else disagrees with us, but people know where we stand and they know why we stand where we do. It seems to me that it's very important that you, too, more and more stand up and be counted in these problems. That does mean political activity and it does mean political involvement. You're going to find a lot of friends in these fights because I think more and more people understand the problems you face.

So, I hope with the start that Lowell, Mary, and some of the others have made, that we can work closely together. We can make common cause and get on with this job of getting more funds and solving some of these problems, not only in education but also in everything else. I would urge you to get into this fight at the local level, the state level, and here in Washington.

Kenneth Young has been affiliated with the AFL/CIO movement since 1951 and has served in such groups as the Insurance and Allied Workers. He has worked as an editor and publicity director. He has been with the Industrial Union Department, AFL/CIO as Assistant Director of Public Relations and Publications and was with the International Union of Electrical, Radio, and Machine Workers as their Publicity Director. He now holds the position as Legislative Representative with the AFL/CIO.

# TRADE AND INDUSTRIAL EDUCATION, STATE ADVISORY COUNCILS FOR VOCATIONAL EDUCATION: RELATIONSHIP AND EMPHASIS

ALTON D. ICE

Advisory committees have been a part of the vernacular of you people for years that outdate most of us. Yet, they, too, have certain evolutions and organizations. Most of us will recall that these were for the most part at the local level. As a new agriculture teacher some 25 years ago, I had an advisory council, and it was very helpful to me and to the program. But with the 1963 act, we had a National Advisory Council and suggestions that states have advisory councils. Many of them did and excellent ones.

With the 1968 Amendments we have a little different approach, that of staffing and funding;



this has been kind of the life blood, so to speak, of the advisory councils on the state and national level. Some states have given the state advisory council state agency status through statute, incorporating the national statute into the state statute. Of course, this does give you a little clout with other stage agencies. Some people may ask if they are political; I am inclined to agree with Kenneth Young that there is not much that we do nowadays that isn't in the realm of what we sometimes call politics. To me life itself is in that realm.

We know that many of our councils are formed by executive orders and appointed by governors; and of course, governors are elected. Others are named by state boards of education when the state boards are elected. Again, in other words, we are really talking about responsiveness to people that are tied in to the electorate.

In Texas now with the state statute, we are able to incorporate all three approaches because our council is recommended by the governor, appointed by the state board and confirmed by the state senate. I think then that you can understand that people are appointed and recommended to the governor for some reason. One thing we need to think about advisory councils is that they are of a dimension that you might say is a little bit outside the hierarchy of education, per se. They have got to be. Yet, I do not think that they can be so far removed that they are unmindful and unaware of the education process and problems. The fact that in many cases they're outside the hierarchy does give them a certain amount of clout.

Now you have heard about the life of the state advisory councils and the question of independence. This has been debated pro and con. I would like to express some of my viewpoints. I have found and listed in rank order what I believe to be the factors of independence of state advisory councils:

- 1. Staff and funding. Before this came to pass, I think, they had to depend upon state departments of education for staffing and support. I am not saying this is bad but I do think it does bear upon the matter of independence.
- Statutory responsibilities. Councils, both through state and national statutes, have responsibilities. They are a citizen group; they provide public forum. The federal regulations say that the state advisory council is to provide a public forum on technical vocational education.
- 3. Location. There's been a good bit of debate over the location of the state advisory council. Ours is located in the State Department of Education as are many others. Frankly, I do not think the location or the geography of the state advisory council is the sole factor of independence. I think it is realizing what

the job is that you have got to do and having the confidence to do it. If it is a matter of saying something that is contrary to the particular situation, then I think it has to be said.

Personally, I do not think the councils should be so independent that they are outside of what is going on, and this can happen. To me, the objectives of the advisory council are the same as you people share here. We have a goal to improve technical and vocational education or trade and industrial education. In our relationship with the Texas State Department of Education and our Director of Vocational Industrial Education, Bob Patterson, who is here in this conference, we feel that we must have lines of communication. He must share with us some of his thinking and we must share with him some of ours. We happen to think that our particular council has a general purpose assigned to it by the legislature that says, "to create a climate conducive to the development." We have to keep in mind where the functions of an advisory council lie.

Ours is one of evaluation, recommendation, and planning. Planning by the council is sort of shadow planning. We cannot plan a program and ask you as an administrator to administer it; you have got to do that. But I think we have got to be involved in the planning process in the matter of give and take in the input aspect of it.

We remind ourselves quite often that, first, the council does not have administrative responsibilities nor authority, and secondly, we do not allocate funds. Anytime we move a council out into these areas, we have destroyed them as an advisory function. The Texas State Board Chairman says he likes to think of the council as one with large head and small hands. In other words, our job is to think and not to do. Our statute says that the state board must respond to our recommendations; they do not put them in the file and forget them. They either accept them or reject them. If they reject them, they return them to our council telling us why they rejected it. They do reject some of them, and perhaps, we might think and see that they have made a point or we may come at it a little differently and run it back to them another time.

In regard, specifically, to the program directors or the state supervisors of Trade and Industrial Education, there are many things that a council can do but there are many things they cannot do. There are many things that the leadership of programs can do and the profession. We think of the advisory council as being the public or the citizen input.

We are frankly quite concerned in our state about the real viability of advisory councils at the local level. With a weak leak in any of these three elements, leadership, advisory council, or the profession, the program and the objectives of the program are going to realize something less than what they could have if all of these are strong and working in harmony. With regard to the local

advisory committees, our council is going out with a questionnaire to our local directors because we feel it is imperative that the community have the opportunity of communication and to give input. In other words, this ought to involve organized labor and management, legislators, and all the other elements of the community. We had 14 regional hearings in our state last spring and the predominant cry across the state was that we do not communicate or understand each other's problems. They were not pointing the figure at education; they were saying "we."

I used the little deal that came out in "Pogo" along about that time. He said, "We have met the enemy and the enemy is us;" all of us. In other words we have got to have a commitment as Kenneth Young talked about.

Now help your state advisory council. Most of them have the idea I talked about previously, that a council is a large head and little hands. You're going to have to do a lot of work for them, providing them with data and information. Do some evaluation and accountability if you will. You heard Lindon Saline talk about this last night. It is with us and it is not going away. It is here and it is a part of us. Our council's number one study this year is what we call a "Texas Education Product Study." We want to know what we are producing, what we can do better, and we should not be threatened by it. You people in Trade and Industrial Education know what you have been training. You know your product and you know it's good!

But we're not just talking about vocational education; we are talking about the total product of education. So we have got to get hold of these concepts and that individual is the one that we've got to keep in mind. This will cause us to come together as a total education system and not worry about whether this is trade and industrial education, whether it is academic or whether it is this or that. Whatever that individual's needs are, we as an education system have got to be supportive of these needs. This done without the inner face of the education system in the community is just absurd. One way, I emphasize, of doing this is through a viable advisory council system. Many of these people can do things, and they have entrees that you will not have. You have some that they do not have. Together it can be a harmonious and effective relationship and accomplishment.

For example in Texas we just went through the final agonizing chapter of the proprietary school bill. This took part of the council and the agency, industry and everybody else. They are working together. We had quite a battle on the cosmetology commission. Some of the people got a little bit wrought up about the thing. We're going to do the public aspect of cosmetology education, so to speak. We tried to have a little hand in it and put our influence where we thought it would do the most good. All I'm saying is that we can help each other for the ultimate goal of those we attempt to serve

I have been much impressed by the Vocational and Industrial Clubs of America (VICA) members that we have had around helping us and being a part of this conference. Our council invites the vocational youth groups to address it periodically. Frankly, they do a lot more than a lot of the rest of us. We cannot forget this group. They are the product we are talking about and they are the ones that can open many doors for us. The important door is often the parent.

In our contact with counselors and every body else, they have said, "Even if we had all the school people with us and everybody else, we can't do this because the parents won't let us." We've got to get the message across so far as the product, and I think we can be proud of the product of trade and industrial education. These VICA members around here are testimony to that.

The whole point is we've got to form those coalitions, as they are necessary and conducive for the ultimate response of all of us and to the goal of serving those that we have a definite responsibility.

Alton Ice was born and reared in Texas. He worked on a farm and later taught vocational agriculture. He served as an area supervisor for Vocational Agriculture in the State Department of Texas. He served in World War II and is currently in the active reserve program with the rank of major. Presently, Alton Ice is the State Director for the Advisory Council for Vocational Education for the State of Texas.

## RELATIONSHIP OF TRADE AND INDUSTRIAL EDUCATORS TO THE STATE LEGISLATIVE PROCESS

THE HONORABLE KENNETH MAC KAY, JR.

The title that was given me is one that is interesting to me "The Relationship between Trade and Industrial Educators and State Legislators." Joe and I were talking about the title last night. He said, "Well, we all know what that relationship really is. In the South, it used to be called "separate but equal." It means that we consider you equals provided you come to the back door and have a sufficient amount of humility and have your hat in your hand.

I would like to propose to you today what I think your true relationship is to state legislators as far as education is concerned. It seems to me that you're the prophets of the education system. You're the people who have been standing off for a number of years, and in an essence saying to legislators and to academic educators, "Repent, and if you don't, the end is in sight." As I understand the Old Testament, that was the traditional function of prophets. I see some analogies in addition to that; I think you



traditionally have gotten "stoned" for your efforts.

I've gotten into the prophesying business a little bit myself in the last couple of years. You might say that I am an "apprentice prophet." I'm new in the business and I find prophesying very exciting. I would like to give you the benefit of some of my views and also warn you of some of the hazards I think you people face as prophets in the next year or two.

As an Old Testament scholar, I am not very good, but I do remember a story about Jonah. The Lord sent Jonah to prophesy to the city of Nineveh and tell the people to repent. If they didn't repent, the Lord was going to destroy the city. Jonah liked that idea because he felt sure they weren't going to repent and deep down inside he'd like to see the action. So he went to Nineveh and said, "Repent or you're going to be destroyed." And to his amazement and disgust, they repented.

Now there is a moral to that and that is that there are two phases to prophecy. Phase one is the criticism phase and that is the one that is most fun. That is what you have been doing all these years, and I have been doing for a few years. We have been standing off saying what is wrong with the system of education. And that is all the fun.

Phase two of the prophesying is when they a maze you and repent. Then they say to you, "Tell us what to do now." I believe that trade and industrial educators are going to find themselves in the position where they've got to switch from phase one to phase two relatively rapidly.

Commissioner Marland has adopted a program called "Career Education." I think some of you are rather amazed now that you see it because it is the one you recommended about five years ago. He put a name on it but it is essentially a recommendation that emanated from this group about five years ago. The problem is that he adopted it in a way that is not quite clear what it is going to mean when it gets translated from a concept into a program. So you are now in a position where you are confronted with a temptation, the temptation being to adopt the approach.

If I had to summarize what I think you are trying to do at this conference so far as it has to do with career education, it is to decide whether you are going to run away from it, be threatened by it because it is so obviously different, or whether you're going to take the role of the prophet and try to lead us out of the wilderness in which we find ourselves and make the concepts that you have been calling for all of these years actually work.

The only reason I can think of that Joe Mills invited me to speak to you is that I have had some experience with this in 1968. We did get involved a bit in a lot of these things, tail end first. That is how I got involved in this and ended up in a program to reform vocational education in Florida.

We passed a package of ten bills with people telling us, "It won't work; it can't work; it's unrealistic; and there ain't no way." And there are other epithets that I will not try to repeat. Out of this package of ten bills, we are batting about .500. Probably five of them will not work, and there probably was not any way they could have worked. In the end we will probably have to repeal them.

There are four or five of them though that I think are pretty profound; and if you are going to have to look at the real change that is needed to give priority to vocational education, these may do some good for you. I would like to outline them and then take a few minutes and really step into the breach and perform the function of the prophet and suggest to you areas where we have got to go if we are going to straighten out education in America and if we are truly going to have career education.

In Florida, we asked ourselves what it was that was responsible for the stepchild status of vocational education. We tried to put our finger on the causes behind the attitude of second-class education in the vocational areas. When all the dust cleared, I believe that the three things I am going to discuss here probably had more to do with it and have more to do with it not only in Florida but also everywhere else than any of the other things we found.

The first thing seems to be very simple; it has to do with the definition, the statutory definition of vocational education. In Florida, we discovered that the definition limited vocational education to direct job-related courses and when we tried to find out why that was, we found that it probably, more than anything else, was linked to the federal definition. Now the implication of that was that prevocational and exploratory courses could not qualify for vocational funds. When we searched a little further, we found that this was one of the main reasons vocational education was not offered in the lower grades. In fact, we found that there was little if any vocational education below the tenth grade level.

Now I do not know how it is in your states but in our state the people that needed it the worst were not around by the tenth grade. We have a 16-year-old mandatory attendance age and that just seemed to tie in perfectly. I am sure it was chance but it looked as if somebody planned it that way because the people who are going to drop out had dropped out before the vocational courses were offered, which makes for a rather ironic situation. It also guarantees the need for continuing remedial programs on a larger and larger scale, continuing the welfare programs, and continuing prison programs, and a few other things.

So we felt that one of the main things we could do was change the definition to include prevocational and exploratory courses. Now that that's been going on for two years, we find that the results are probably greater than we thought. The idea of the inverted triangle and all these things that are now coming out in the federal model, we have been working on for two years in Florida. The curriculum is being redone to put an emphasis on vocational education from kindergarten throughout the system.

The next part I would like to touch on is our funding formulas. It goes without saying that the funding formulas are inadequate, in that we are not putting enough money in vocational education. I am talking about a little different aspect of it now; I am talking about the question of the seeming irrelevance between the programs that are offered and the needs of the community and the needs of the student. We were trying to find out why that seemed to exist. One of the things we discovered was that there is a wide disparity in the cost of vocational programs. I'm sure this is not limited to Florida. We discovered that some vocational programs cost us three times as much as others, and yet the funding formula is set up on the assumption that they all cost the same amount. Now you do not have to be very bright to realize which courses are going to be offered. The courses that are going to be offered are the courses that are going to bring in the most dollars per student. You do not have to be very bright to realize also why some of the courses that are needed most are not offered.

We went from this to a differentiated cost category funding approach. That is to say, we ask the state department to tell us the cost of running the various programs that are being offered in Florida and then we gather these courses and the information has been provided. In fact, I must tell you in all candor that two years later we still do not have the information.

It has been done, however, at the junior college level and we believe that we can take that information and apply it. We are going to try anyway if we can get it past the budgetary people in the House and the Senate. We're going to try to institute this program this year. In fact, we have been told by the Senate Appropriations Committee that if we do not get the figures and if we do not institute it this year, they are not going to put any more money into vocational education. So I guess that we are probably going to get the figures rather quickly.

What we would like to do is group all programs into not less than 3 nor more than 20 categories and provide the funding in accordance with the actual cost of the program, so that the local school districts and vocational directors can make a decision about what to offer based on what the needs are instead of where they're going to get the most money. We would like to be able to fund vocational education in accordance with what it actually costs.

The last area which probably is the most excitement in my life in the last couple of years is our approach to counseling in the school system. We discovered two or three things that we didn't like about the counseling. One, there weren't

enough counselors. Two, the ones that were there were in the wrong place. Three, they were educated wrong. And, four, they were doing the wrong thing. There was some disagreement over our conclusions.

Let me give you an idea of what it was like in Florida. We had 200 elementary school counselors for 800,000 students. That's a ratio of 1 for 4,000. In the secondary area, we had 1,450 counselors for 650,000. Then they asked, "Well, where are they?" We discovered that just like vocational programs, they are concentrated in the tenth grade and up, which once again presents an ironic situation. The people who need the counseling weren't there so it certainly makes the counselors' life easier and also makes them available for the other things that they are given to do in the school system like being the disciplinarian, and a few other things. They were in the wrong place; and they perceived their role as being to counsel those who were going to graduate and, primarily, those who were going to go on to college.

They are educated wrong. In Florida, I do not know how it is in other states, counseling is offered as a course at a graduate level only. That is to say you can take it as a master's and doctor's degree program but you can't take it at the baccalaureate level. You can't take even a paraprofessional course at the junior college level. So what is the profile of the typical counselor being graduated in Florida, we ask ourselves. Well, he has 12 years of high school-public schools, primarily academic; four years of baccalaureate work, primarily academic. In fact, it probably is solely academic if he means to go under a graduate program because he's got to compete scholastically to get in. And then he has two years at least at the graduate level.

How much education did he have concerning the world of work? We discovered that there is one course available out of 16 years of education. That course is called "An Introduction to the World of Work," and it's optional.

Now we took the figures we had, and we found a shortage of some 2,000 to 3,000 certified counselors so we got all the deans of all the colleges of education together and asked, "How many are you turning out a year?" They counted up all totaled and it came to 150 a year so we asked them what they were trying to do to resolve this seeming disparity. They said, "Well, we are interested in the stature of our school in the counseling profession. We are tightening up our class standards; we're raising our entrance requirements; and we're going to have a smaller student-teacher ratio. That is to say, we're going to turn out fewer counselors and that is how we're going to resolve the problem."

Anyway, our communications broke down rather badly and we decided there was not any way we could go from where we were to where we wanted to be by going through the traditional colleges of education. So we developed a concept



called "The Occupational Specialist." We wrote this into a statutory form, and it does show some degree of belligerence on our part I will have to admit. What it says is that school districts may hire anybody they want to hire as counselors regardless of academic attainment. They must base this on what they think the person's ability is to relate to the needs of the students in that community; and they should take into account such things as work experience, moral character, compassion, and many things that are not measured by the graduate record exams course. The last thing we said was that they could not pay these people less than a rank three teacher. When you want to talk about academic bias built into the system, you ought to look at the pay scales and see how pay is related to academic attainment. It's not that way anywhere else in the world, except in education. So we decided we would throw a little of our bias in and said in this case, you cannot pay these people \$1.60 an hour as teacher's aides; you've got to pay them what you would pay a beginning teacher.

The program has been implemented and is off the ground this year. I will try to report back to you later as to whether it works or not. We personally feel that it has great potential to resolve several of the underlying problems that we see in education.

That is a brief outline of our efforts to date, some of which I think could be adapted to problems that I understand exist in other states.

If we are really going to try and get somewhere in education, if we're really going to try and restore public confidence and resolve what I consider to be a great credibility problem that has arisen all across the nation in education, we are going to have to turn our attention to some problems that are inherent in some of the things I have been discussing but which we are beginning to realize we have just touched upon in Florida.

The first problem is the problem of transition. The problem of transition, the National Advisory Council on Vocational Education says, is a major defect in our system of education in America. We are the only advanced, industrial nation in the world that does not do something toward resolving the problem of transition in our public school system. Now what do I mean by that? Think what we do about job placement. The only job placement in our whole educational system is for someone who graduates and gets a baccalaureate degree from college. He is the only guy that we really help get a job. He is the guy who needs help the least. We treat the problem of the kid who drops out at the tenth grade level as not our problem in education. Whose is it?

The counselors in high schools are outraged when I tell them they have the responsibility for job placement. They have the responsibility of job placement for the guy that graduates, the guy that does not graduate, and the guy that is going on to college. What I am really saying to you is that you need to take the concept of the occupational specialist and explore the implications that it has

for counseling in general. I am talking about a differentiated staffing approach to counseling—a counseling department that has responsibilities of motivation, of working with the dropout, and of trying to get him into special programs. Dr. Saline talked last night about the need to counsel with parents; and of course, he is right. The need to go to parents, particularly in the black community, one of the great problems, is the gap between the parents' expectations for their children and reality of what their children can accomplish. Somebody needs to go to talk to them, and that somebody does not need to be a person who is 25 years old with a master's degree in counseling.

It needs to be somebody who has been through it and can relate to them and somebody in whom they have confidence and trust. So we need specialists in counseling, one of the specialists being a counselor for motivation for occupational purposes and another of the specialists being a person in charge of job placement.

That leads me to another one of the great deficiencies that I see existing in education today, that deficiency being the lack of a feedback inechanism in our school system. As a lawyer, I advise businessmen, I have some clients who are relatively large business people and actively involved in sales. I know that they consider the feedback mechanism as being one of the most important parts in their business. Now what do I mean by that? If they turn out a product that does not meet their customers' needs, they want to know about it and they want to know about it fast. So the guy that gets the most priority in their whole system is the manufacturers representative or the sales engineer because he is out there on the firing line finding what is wrong and trying to build in the adjustments and trying to come back to the plant and tell them how to change the product.

If you had job placement responsibility somewhere in the educational system, you would necessarily get the feedback mechanism and you would get it very rapidly. You would find that counselor who is getting scorched.

Right now I seem to be involuntarily performing the feedback mechanism and probably some of you do too. People come to you and say, "Look, your graduate is not employable. He's a nice guy and he knows all about Silas Marner and third year French but he can't hold a job. He doesn't have the habits and the attitudes that sum up to employability."

Lindon Saline talked last night about the problem of adolescence. That is only part of the problem. Plug into it also the problem of early childhood education in year-round schools. Put it all together and see what you come out with. You come out with a 15-year-old high school graduate and that is unacceptable. That is not going to happen. So then you run around and wonder what is going to happen. There is a need for a drastic expansion of co-op and work experience programs so that a student on the way through can come in

and out. That happens to be something else you ought to be prophesying and involved in; you ought to take the stand right now while the decisions are being made.

In Florida, we've been studying the apprenticeship programs conducted under the auspices of the Joint Apprenticeship Council. We have come to the conclusion that this is a major gap in our system of public education. Now these are my own conclusions and our committee's conclusions at this point; and I do not want you to hang this on anybody from Florida. I want you to consider objectively what we have got in apprenticeship education. I am assuming that the situation in Florida is fairly general. Our statute, when we finally went and read it, reflects an intent to set up a joint apprenticeship council program as a voluntary, supplemental program to supplement this type training which is assumed to be conducted in the public school system. Now when you overlay that on what is actually existing in the field, you find there are no uniformly available apprentice-type programs in our public school system and you begin to see the problem.

We've asked these people for the last two years to come in and tell us what their policies are. Their policies are totally consistent with the idea of their being a supplemental program, voluntarily financed by themselves—no state money is involved. They're fairly restrictive on the people they take in. In 1969, in Miami we discovered that there were 6 black people in the apprenticeship program out of 1,800. We raised some hell about it! The next year we went back and asked, "How much good have you done?" They answered, "We've had a 100 percent improvement. There's 12."

We asked what their policies concerning the number of trainees in the apprenticeship program were at any time. They said, "We have local councils who decided how many apprentices are going to be trained." We then asked what their criteria were? They remarked, "Well, here's the way we look at it. We want to train enough people so that in times of depression there won't be any of our people out of a job."

What's the policy in your state? And when did you last have a depression? Does that not mean that in all normal times there is going to be a built in shortage of people who are trained through the apprenticeship program? I submit to you, of course it means that. Now take that policy which now by default is apparently the policy in the state of Florida in apprenticeship training and compare it to the policy throughout the rest of our education system.

When I go to these people and say, "Hey, we've got 60,000 unemployed social studies teachers. Why don't you quit educating social studies teachers?", they say, "Look, you are provincial. You think we're educating only for the needs of this community. We're educating nationwide. We can't cut down because as long as these people

want to be educated in the public school system they have a right."

Outside of the Bell Telephone System, who needs geography? Think about it. If we were to quit teaching geography, there would be no job for geographers except for the Bell Telephone System. But we can't quit, and the reason is we're educating on a nationwide scale. Now, I am making fun of it, but I happen to believe that is right. With the mobility we have in our society today, it's totally provincial and it is 19th century thinking to assume that we are educating only for one community. Then having decided that that's an appropriate policy for the state, take a look at the policy in apprenticeship training. They say if we do not need them in this community, we are not going to train them. Now we are trying to and they also say that they are not going to give them credit for the courses they've taken in the public school system because they might not meet our standards, which is an ironic switch.

We are working on a package of bills that I hope to have introduced this year which would say that the state is going to offer in its public school system courses in the construction trades. It is going to offer them in the construction trades as far as classroom training is concerned, and it is going to offer on-the-job training. The way we are going to do it is, we are going to say if anybody contracts for a state, county, or local building as part of the contract he is going to have to agree to train our apprentices. He is going to have to take one of our apprentices for every two or three journeymen he's got on the job. Then they say, "Well, what good is that going to do; they still won't be able to get a journeyman's card."

We are going to attempt to pass a bill that says there is going to be a uniform, statewide test. If he passes that test, he's qualified. Not only our graduates but the graduates from the Joint Apprenticeship Council programs are going to have to take our test.

This is what we do in anything else in education and all of a sudden for some reason we have abandoned the field. Now I'd like to close with another parable. This parable is the second law of aerodynamics, "You can't push an object that is moving faster than you are." You are the top prophets in the system. The pendulum has begun to swing. The change is going to take place, and it's going to take place very rapidly. You're either going to have to tell us how to do it at the state level, or you're going to have to get out of the way, because it is going to happen.

Kenneth MacKay was born in Ocala, Florida. He was educated in the public schools of Marion County and graduated from the University of Florida, he served as a pilot on active duty in the Air Force for three years. Upon completing his tour of duty with the Air Force, he entered the Air Force for three years. Upon completing his tour of duty with the Air Force, he entered the



University of Florida College of Law and received an LLB degree with honors in June of 1961. He is married and the father of three sons. He has been a lawyer since 1961 and is a member of the law firm of Fotilla, MacKay, and McKeever in Ocala. He was elected in the 1968 general election to a seat in the Florida House of Representatives. He received the Allen Morse Award as the outstanding member of the House of Representatives in 1969 and again in 1970. In 1971, he received the Saint Petersburg's Times Award based on a vote by the Florida Press Corporation for being the most effective member of the Florida house.

## THE IMPORTANCE OF VOCATIONAL EDUCATION TO THE ECONOMIC AND SOCIAL FABRIC OF THE UNITED STATES

#### THE HONORABLE ROMAN C. PUCINSKI

I am very pleased to be with you to share with you some of our views on the Ilill. I want to thank Lowell very much for that fine introduction. I said to Lowell many times that there is nothing that makes a man in public office feel better than to have someone read so well the introduction I had so carefully prepared.

I am sure that in the brief time that you have been here that you have come to appreciate the fine staff that the American Vocational Association has. Of all the various organizations that I have occasion to work with, I find that the AVA really has the finest staff in the city, and they are moving forward in this country in arousing a greater awareness of the key role which vocational education has to play. It is only because we are fortunate to have people like Lowell Burkett and his fine staff here translating it into meaningful terms for the legislators that we can work like we have been doing in the field. There's a saying here in Washington that whatever Lowell Burkett wants, Lowell gets and I don't think that's an overstatement or exaggeration. I am pleased to be here with you because you are meeting at a very important time. We are going through some very difficult times in America right now. We are disturbed about the fact that we have six million unemployed, another six million underemployed, and another three and a half million working poor. We are in a serious economic slump, but if you will look at the profiles of America's economic history over the last 100 years, you will find that our economic system historically has had hills and valleys. We have had valleys before. When the valleys get as deep as they are now, we obviously try to do something about it.

The President has proposed to Congress a rather elaborate plan to deal with Phase II in an effort to try to stimulate the economy. Whether it is going to help or not is hard to predict at this time, but

we know that one way or another we are going to work our way out of this. There may be some differences of opinion as to what is the best way to go, but be that as it may, we will work our way out of it.

I am still predicting that within the next 100 months or by the year 1980, we are going to reach a two trillion gross national product in this country. We now have some 88 million people gainfully employed. We talk about the six million unemployed, the six million underemployed, and the three and a half million working poor. This is a very serious figure. We are deeply concerned about it and many things are being done to deal with that problem. But we should not lose track of the fact that while we have a problem at that end of the spectrum, we do have some 88 million people gainfully employed over here. We anticipate a labor force of 100 million by 1980, and we anticipate enormous changes in the country. One of the greatest single problems that I have as a member of the Congress is translating to the American people and particularly to the American educational community, the enormous changes that are going to occur in the job profile of this country in the next 100 months.

We are not talking about the next 100 years. We are talking about the immediate future, the next three and a half thousand days—the next 100 months. And because of the enormous changes in the technology of America, we do have to take a hard look at the education system. I am absolutely irrevocably, totally, and completely convinced that if the American educational system is to be saved, it is going to be saved by the vocational educators.

I am convinced that the last third of the 20th Century in education belongs to the vocational educators; and to meet the enormous problems that lie ahead, we are going to need every bit of your ingenuity and courage. Courage to change will be essential. I recall that Carnegie funded a risk taker's fund. It set aside some money to give an annual award to risk takers, such as people who go over Niagara Falls in a barrel, cross a tight rope over Niagara Falls, or sit on a huge flagpole some place. Mr. Carnegie was obsessed with rewarding risk takers and I sub mit to you that what we need more of than anything else in American education today especially in vocational education, is a breed of risk takers, men and women who are willing to take some chances with some new ideas.

Now, this is not to say that our present system is bad. I am not here to bury the American educational system. I know we are involved in a strong dialogue across the country today as to whether or not American education is doing a good job or a bad job, and I am fully mindful as Chairman of the House Subcommittee on General Education which has jurisdiction over some 55,000,000 children in this country of the shortcomings of American education; and there are many. But I am also mindful of the fact that this educational system has brought us to the

highest standard of living of any people anywhere in the world. This educational system has much to be said for it, because we have an American population who can understand the most complex form of government ever created by man and can fit into perhaps the most complex economy ever developed by man. The free enterprise system is no sport for the meek. It takes a great deal of courage and a great deal of understanding; and I think that the American educational system has produced a labor force of 88 million Americans who are for the most part doing a pretty good job. And so I don't think we are here to bury the American educational system. What we are here for is to try to build on it. What we are trying to do is to recognize new challenges, new means, and new opportunities. We are talking about a twotrillion-dollar economy. One of the biggest changes that will occur in American education is in the distributive sciences, for indeed we are going to have to move a two-trillion-dollar economy. It would do no good to have a two-trillion-dollar gross national product in these 50 states if we can't devise a system to move goods and services across the country back and forth where they are needed. So you are going to find enormous changes in the whole spectrum of distributive sciences from truck maintenance to inventory control to all the other things that go into moving a two-trillion-dollar economy.

A nation with 250 million people with a two-trillion-dollar economy is going to need great medical care. We are now debating in the Congress a national health insurance program that will provide Americans the highest standard of medical care any place in the world. But we are going to need people to do this; so you are going to see enormous breakthroughs in the whole field of paramedicine. We are going to have to develop skills of people. We are going to be able to help the doctor because a doctor will not be able to do these jobs alone.

In the construction industry, we are talking now about a deficit of 20,000,000 housing units in America so we are going to have to see entirely new concepts in the whole construction industry. Changes will occur in the whole business of commerce. Enormous changes will occur in the next 100 months as regards the people in the executive suite. We are talking now about secretaries who are going to work out of their own homes with electronic equipment, phonovision, and television and all the other supplemental aids. You are just not going to be able to move that kind of a labor force every morning to work and every evening home from work.

So there are great changes that lie ahead. Great changes lie ahead and we in vocational education have to become the new generation of risk takers. We have to be willing to look down range in seeing these changes and then adapt our curriculum to meet these changes. In our whole field of education, I feel very strongly that nowhere will you see a bigger change than perhaps in what we

now know as home economics-training women for the dual role of bread winner and homemaker at the same time. We are going to have to develop training courses for young women which will prepare them for this dual role, because women are going to continue to be the homemaker; and the whole business of homemaking itself has become a very complex industry. We recently did a study of what it would cost the average household to purchase on the open market the services that the average housewife and mother provides her family in an average year. At minimum wages without overtime, we estimated it would cost you \$15,700 a year to buy those services. What does that figure tell you? It tells you about the complex structure of the average modern homemaker-the things that she has to know and the things that she has to do and do well. The future will place even greater demands on her.

Now add to that the fact that when industry goes to a 100 million labor force, industry is going to have to recruit that mother into industry. Industry is going to need those women, not because they want to work but because industry is going to need people. When we look at our projection census figures for 1970 and 1980, we find that the ratios of females to males is going up. We anticipate that by 1980 the ratio is going to be somewhere around 53 percent female and 47 percent male, so you are going to have to train young women to be homemakers and breadwinners at the same time. This is no easy task when you consider that both the assignments have become more demanding and more technical and major.

So we are going to have to see these enormous changes in home economics. We are going to have to open up home economics to young men. The male member will be assuming more responsibility for running the household simply because the female member of the family is also going to be working 40 hours a week. We are now anticipating that by 1975 that 50 percent of the mothers of this country are going to be working also.

So you can see the enormous opportunities that lie ahead for vocational education, and this is why I have said time and time again, this nation, if we are to meet the challenge of the seventies, must restructure the whole system. We have got to make vocational education an integral part of the whole educational system. This foolish notion that somehow or another this segment of the student population ought to go on to college and this segment ought to go on to the world of work has got to come to an end. This nation must realize that the primary mission of American education from now on in this highly complex technological society which we see immediately ahead, the first emphasis has to be that the educational system must assume and must be so geared that every young American graduating from high school is going to graduate with a marketable skill. I am not at all persuaded by those who say young people

change their minds and young people are going to go on to college. Even a medical student is going to spend 13 years in college before he gets his first nickel of fees from his first patient. It makes a lot of sense to me to give that young college bound student some marketable skill so he can get a decent job while he is in college to pay for his college education, so he can earn more in a decent job so he can have more time to spend on his studies than taking the lowest paying jobs as many college students must now do because they have no concept and no preparation for the world of work.

I go on the theory with the high cost of higher education-and it's going to get even more costly-every young American attending college is going to have to supplement his educational assistance with a student loan program or with some type of temporary or part-time employment. So it just makes a lot of sense to me that we ought to assume that every young American in high school is going to have to enter the world of work sooner or later, male and female, and we might as well structure an American educational system that is going to meet that need. I will tell you one reason why we are having a great deal of unrest and turinoil among the young Americans of today! Why we have communes and all sorts of things where young people didn't engage themselves in the realities of life is simply because we have not prepared them for the realities of life. The young people have no fallback position. One of the greatest single social tragedies of America, in my judgment, is a college dropout. We are all obsessed with this college approach. Every American has to have a college degree and somehow or other the average American parent feels that he has not served his children well if he has not prepared them for college.

You talk to the average parent and you say, "I think your son or daughter ought to have a useful education." They say, "Oh no Congressman, my son or daughter is going to college." What these people don't realize is that while 50 percent of the American high school graduates enroll in college, only 17 percent of those that enroll in college ever complete the course and get a degree. We have an 83 percent dropout rate in America's institutions of higher learning; and I don't know of anything that is more tragic than to have this young American come to the top of the mountain and then roll back totally unprepared for the world of work.

You can see the enormous challenge that we have before us. We have got to merge vocational education right into basic education. I do not deny the fact that we have got to teach young Americans the basic skills. People have to learn how to communicate. They must learn how to read; they must learn how to write. They must learn how to add and subtract and they must learn something about the environment in which they live. I am not demeaning social studies, but I think

there can be a happy marriage between the two. I asked the principal of my son's high school the other day why my son has to take French. My son is a freshman in high school and he enrolled and they gave him a choice of either French, Russian, Chinese, or Spanish. I said why can't my son be taking some form of vocational education instead of taking French? Why is it important that 100 years ago someone said that languages are important and so now every college bound student must have languages before he gets admitted into college, and he will not get admitted if he doesn't have them? Why? Who says so? Where is it written in the great book that this is what makes a young student capable of meeting the needs of the 20th Century?

How much more sense would it make to give these youngsters as their electives some vocational training and prepare them for some semblance of the world of work? Where in this country is anybody today talking about quality and production? Where do the young people learn anything about work habits? Where do the people learn how to find jobs? We send young people through 12 years of education. I do not know of anything more tragic than an experience that I have every Saturday morning at my office in Chicago when I have young people come in and say, "Congressman, I'm going to be needing a job next summer to help pay for my tuition. Do you think you can help me?" I say, "Well, perhaps I can, what can you do?" Here is this beautiful, wonderful, young American, young man or young woman, in his first, se cond, or third year of college and they look you straight in the eye, shrug their shoulders and say, "Nothing." We have taught young people for 12 years to do absolutely nothing, and then we wonder why we have got troubles in our educational system.

So for that reason it occurs to me that the answer lies in vocational education and strengthening the program we have now, utilizing the '68 amendments that were passed through Congress with the help of Lowell Burkett and his staff on the AVA, and keep moving forward. We are now coming up for a vote tomorrow, I hope, if the Rules Committees give us the rule today and I hope that they will, we are going to vote on a higher education bill. We have in that bill a new title, Title XVI which is the Occupational Education Act of 1971. Lowell Burkett was instrumental in drafting this legislation. This legislation was proposed by the AVA because it further strengthens the whole concept of vocational education in this country. It will provide 100 million dollars next year; money in addition to the other funds we have for vocational education, primarily to be used for planning, counseling, and placement in elementary and secondary schools. The whole thrust of this bill is to make vocational education more accessible to more young people. One of the main things in the bill that I value is the fact that it will make funds available for



developing counseling services at the elementary level.

Our studies show that the average youngster who drops out from high school starts thinking about dropping out at the sixth grade level. The genesis of a dropout starts somewhere in the sixth grade level, so we are proposing a high density, a high degree of career counseling, of vocational counseling, at the elementary level to capture the imagination of these young people to help them plan some sort of a meaningful future.

I have found that one of the great problems of American education today is that we are dealing with a generation that is very bright. Our young people today are extremely bright. They are very communicative; they are very inquisitive. They are exposed to television; they are exposed to magazines and newspapers and lots of other things but one of the great tragedies of our time is that these young people have no one to communicate with. Ask yourselves, are there opportunities for young students with a problem to talk to someone who can help them find a solution? Counselors are overworked. Counselors in some areas are also teachers and are doubly overworked. So we have youngsters who cannot communicate with anyone.

I am putting a high emphasis on career counseling and guidance simply because I believe that a ready availability of a counselor to a student can make the difference between the student staying in school or dropping out. This legislation also proposes that the funds will be available-80 percent of the funds-to the states on a per capita base of 16 years old or older, to do a great deal more comprehensive planning for postsecondary vocational education, so that you can tie your programs in. One of the great problems of America is that we've got magnificent programs in this country. The vocational educators have done a hell of a job in America. You have developed great programs in this country, but the stuff is just not finding its mark on a broad enough range in the educational community.

It continues to be the silly notion that somehow or other vocational education is for the nonachiever, the kid who is not going to go any place. This legislation before us now is designed to make funds available to you at the local level to do more comprehensive planning, and to do more of your integrating work in terms of bringing about a closer relationship between basic education and vocational education, so indeed we can reach that glorious day when each of these youngsters will have a marketable skill. We have a number of studies that show that young people who have had experience in vocational schools do better in college. We have a number of research projects that show that a larger percentage of the youngsters who actually graduate from college are those who have exposure to the discipline of vocational education.

We also find that many young people through adequate counseling can be attracted to higher

education. This is why we put a great deal of emphasis on this new bill on postsecondary education to give youngsters an associate degree, to give them an exposure to the world of work. and to give them training for the world of work. If they want to go on and continue to a degree fine. We do not cut them off nor do we intend to cut them off, but we do believe there are an awful lot of young people who do not want to go on for a four-year college. They are not interested in a bachelor's degree. These young people are placing their highest hopes in the junior colleges, the community colleges, and I have said time and time again to my friends in academia that the junior college is going to become the backbone of the American educational system. We intend to build 527 new community colleges this year alone in the United States. This gives you some idea of the drive and the great attractiveness that community colleges are experiencing in communities, because they are responsive. They are sensitive to the immediate needs of the young people. I predict that is what is making them so successful and so attractive; and so as you can see, through good counseling, we can attract youngsters to those colleges.

Let me give you two good examples. There was a black youngster who testified before my committee who unfortunately lived in a ghetto in Chicago and this little boy had a low-average C grade. He was attending the Marshall High School and he was a potential dropout. What they were doing was just waiting for this boy to reach the magic age of 16 and then push him out. Many of these kinds do not have an opportunity to expand their goals in education. At age 16, they are gently pushed out. A sympathetic counselor took an interest in this boy and persuaded him to transfer to the Westinghouse Skill Center in Chicago. At the time that this young boy testified before my committee, he had a very tough decision to make. He was a straight A student at the Westinghouse Skill Center, and his decision was which of four universities to select. Four universities had offered him scholarships in electrical engineering. Now there is one little example of how a whole human life was changed simply because a sympathetic counselor took an interest and recognized latent abilities in this young student and moved him into an environment where his resources and abilities were fully developed. The boy finally decided to select Purdue because he felt that it was the best

Another example is of a young girl who had no particular plans so she decided to take up beauty culture and be a hairdresser. She became so interested in this subject that she went on to college and got a degree in cosmetology. You can have examples like this by the millions all over America because this legislation before us today was designed to try to bring together vocational education, basic education, but more important to help convince parents that the future of their

children lies in some degree of vocational education. The idea that they can go through life without having any work habits developed is now a thing of the past, because life is going to become too complicated.

We finally have a strong case in vocational education against inflation. Right now we are in a deflationary cycle. We have unemployment problems so it is difficult to talk about inflation in terms of job shortages, but I remember not too long ago when we were in our sixth consecutive year of economic growth and there were huge labor shortages. I remember that one of the great problems of America was pirating of skilled personnel. Just 36 months ago people were pirating skilled help from other employers; there was not enough skilled help to go around. As we swing into a two-trillion economic growth, which we are going to do, you are going to find that the need for skilled help is going to become even more pronounced. And unless we develop in our educational institutions a steady supply of this kind of help, you are going to find that our two-trillion-dollar economy will be useless because it will be so inflationary that no one will be able to enjoy it.

The key to inflation in my judgment in an economic upswing is a steady flow of skilled help to meet the needs of industry. Then you have productivity, then you have all the other things that stabilize the economy in your country. Finally the great challenge to you as vocational and technical educators is in a field of basic adult education. We are now fully predicting that in the decade of the seventies as we swing into a two-trillion-dollar economy, as we swing into a 100-million-dollar labor force, as all of this technology starts taking shape, as it will and do not make any mistakes about that, we are going to see people changing basic job skills anywhere from five to nine times in a working lifetime. In other words, education is going to be a continuing lifelong project. This idea that you send a youngster to school for 12 years and perhaps two years of postsecondary is just not going to be here by '75, '78. We are talking about industrial task forces. The Lockheed people tried it with the C-5. They put together a team of 11,000 technicians, administrators, and everybody else. They developed that airplane. When that project was finished, they dissolved that team. Now they are talking about a concept called autocracy where instead of having a permanent employment basis, they are going to have industrial task forces. They are going to be assigned to a certain skill, a certain mission, and a certain job and then they are going to be dissolved. Unless we develop an educational system that has a radar that can see the future needs and train these people while they are completing one job, they are going to have a tragic repetition of the tragedy that we now see on the West Coast where highly skilled engineers, men who are key members of the team that sent men to the moon in this country, are

today driving taxi cabs and serving bars and in all sorts of other jobs on the West Coast because they cannot find any other employment. So our great job is going to be to develop within the educational system a better United States Employment Service. The whole manpower program ought to go to the vocational educators so they can develop a comprehensive program, a program where the United States Employment Service (USES) will be an arm of the state vocational education system. In that setup, USES will become the radar to look ahead, to plan ahead, and to tell you what will be the manpower needs in 1973, '74, and '75 in this community and other communities.

What are we going to do with this worker when his present job has been phased out because of changing technology? You can see from what I'm saying here today the enormous challenge that lies ahead for each of you. You are going to have to become the innovators; and with each one of you in this room lies a responsibility of taking a chance, shedding off your old overcoats, and taking a look at the new concepts. You've got a tremendous track record. The only segment of the American educational system that works today is vocational education. I say you've got a great record. Now we need your help. We need you to take a look at this new bill we're passing tomorrow. We need to take a look at the whole bill; we need you to stand up for your rights. No segment of the American educational system has greater support of the legislative body than vocational educators.

Let me tell you something about the '68 Amendments. The '68 Amendments went through Congress without a single dissenting vote. I know that Lowell Burkett was responsible for that to a great extent because he has got the muscle and he can put the kind of hammerlock on some of these recalcitrant members as he does, but the fact remains that that bill went through Congress without a dissenting vote, and the only appropriation measure that was increased by the Congress without a single dissenting vote was vocational education. So you have within your grasp the ability to develop an educational system that will not only meet the needs of America in the seventies and the eighties, but also will address itself to the many social problems besetting our country, the things that have divided this country for far too long, denial to people of job opportunities because of their race or their religion or their national origin or because of their sex or their age. Now they are even talking about height because we have some interesting statistics that there is really a serious bias in this country that affects people under five feet eight inches; and a most interesting study shows that of two guys graduating from college with the same grades, one five foot seven inches, one five foot nine inches, the guy above five feet eight inches can invariably earn 12 percent more than the guy under five feet eight inches. I do not know why there is this bias.

The fact of the matter is that we are developing a system, an educational system of opportunity for all of our young people, and that we will be able to eliminate much of this discrimination as we search forward to a two-trillion dollar economy and a 100-million labor force in this country. There just won't be any room for the kind of discrimination that has divided this country for much too long. The enormous opportunities that lie ahead will not allow for these things that divide us. Now it is up to you, ladies and gentlemen, to look at the legislation. I hope that Lowell is going to give you a full briefing on this before you leave. I am sure we are going to pass it. This coupled with the '68 amendments, coupled with the '63 amendments, coupled with the Smith-Hughes Act, coupled with the experience and expertise that you have in the field of technical education, makes all of us honestly believe, as I said a moment ago, that if the American educational system is to be saved, it is going to be saved by the vocational educators.

United States Representative Roman Pucinski, a Democrat from Chicago, Illinois, has been a member of the 86th, 87th, 88th, 89th, 90th, 91st, and 92nd Congresses. He has served as a member of the House Committee on Education and Labor since 1959; as a member of the House Committee on Veterans' Affairs; as chairman of the Subcommittee on the National Labor Relations Board, 87th Congress; as chairman of the Ad Hoc Subcommittee on a National Research Data Processing and Information Retrieval Center, 88th and 89th Congresses; as chairman of the Standing Committee on Select Education, 89th Congress; and, as chairman of the Standing Committee on General Education, 90th, 91st, and 92nd Congresses.

Among the bills sponsored by Congressman Pucinski are: Federal Aid to Education Act; College Loan Program; Adult Education Opportunity Act; Bilingual Education Act; School Lunch Act; Library Services and Construction Act; Vocational Education Act Amendments; Occupational Health and Safety Act; Juvenile Delinquency Prevention and Control Act. He has been a prime mover of the President's \$1.5 billion Emergency School Assistance Act, 92nd Congress.

# THE ROLE OF TRADE AND INDUSTRIAL VOCATIONAL EDUCATION PROGRAMS IN MEETING MANPOWER NEEDS WILLIAM HEWITT

I am substituting for Assistant Secretary of Labor Malcolm Lovell, who had the good fortune to be out of town and indeed out of the country. He went to Paris last night, for a conference; from there he will go to Venice. So Venice's gain is your loss and you will have to put up with me for this morning's breakfast remarks.

The subject for this morning's meeting "The Role of Trade and Industrial Education in Meeting Manpower Needs of the United States," is a subject that I can't possibly handle in an hour. It would be presumptuous of me, particularly as I review the program of meetings that you have been having. I will try to summarize and gloss it over.

I have got a lot of numbers that our research department has related to what vocational education and specifically T&I has been doing, but I think I will just leave them all here since you all know them from a much closer association than I do

Perhaps we can talk about a couple of things, a little perspective maybe and some thoughts about the broader role of T&I and vocational education than what we have just in the last few years come to call manpower in terms of manpower programs and training programs. Namely, in the basic preparation of youth in the country, what are the man power needs of the country in the decade of the seventies? These are composed obviously, from the viewpoint of a would-be economist, at least, of demand and supply consideration. On the demand side, we have the job, job prospects and the projections for 1980 turned out by the redoubtable Bureau of Labor Statistics, which are indeed bullish. We would expect to have a trillion-and-ahalf dollar economy in 1980. That is one trillion and a half. That is such a fantastic list of zeroes that I can't even count the zeroes, in back of the

That will be a 60 percent growth in gross national product over the decade of the seventies. This 60 percent growth will be made up predominantly of growth in the labor force. The labor force over the decade will be growing almost 25 percent. In fact, it is projected to be 100 million workers in the labor force by 1980, and while it will grow very substantially, I think it is significant to note that the black population will contribute more by means of the demographic trend in the last decade or so to the growth in the labor force during this decade than the average. The negro labor force will go up by about a third.

Some of the components on labor force growth include one-half of it in the most employable age group-people from 24 to 34 years of age. That is quite a change from the decade of the 60's when the predominant growth in the labor force was among the youth group or the new entrance group-kids turning 18 and 18 to 24. This decade we will not be dealing with the demographic problem that we had in the last ten years, of a superabundance of all too frequently ill-prepared young people, which caused a very high unemployment rate for youth.

But while our problems will change, I am not sure the demographic trends are going to make them go away. We could look at the labor market



research and conclude from the historical series that after people turn 25, on the average, all of a sudden they become a lot more employable than when they were between 18 and 24, so now that more of the people are going to be 24 and older, unemployment will be lower. But I am not at all confident that this type of simple calculation will hold up.

In addition to the predominant well-being in the 25-to-34 age group, we will also see a continuation of the increase in the participation of women in the labor force—women particularly in the child-bearing years. Indeed, the female participation in the labor force today accounts for about 37½ percent of our workers and that will go up significantly during the decade, or at least so we've projected.

Of equal significance is that the trend in increased educational attainment is expected to continue. Educational attainment for those 18 years and over in the labor force was 12.4 years in 1970, and that is projected to go up significantly. If it goes up anything at the rate its been going up in the last two decades-as I recall, it was 10.9 years in about 1952,—we can anticipate it will be in the neighborhood of 13 years by the time 1980 rolls around. But there will be in all probability, some 5,000,000 dropouts from school in this decade. So while the bulk of the labor force will be better educated, better equipped in many respects to hold down the jobs of the future, those significant numbers who will not share in the educational advancement are going to be even harder problems to fit into the job market.

Productivity will be the other major contributor to the growth of GNP, along with growth in labor force. We expect it to continue at a somewhat lower rate—to grow at a somewhat rate than it did in the sixties, something about 3 percent. That is not because productivity and economy will be growing any less, but because of a shift in the composition of employment that is proceeding. We shall see more of the employment growth in the lower productivity growth sectors of the economy, primarily in the public sector. That may say something to a lot of us here about trying to find imaginative ways to do our own jobs better and more proficiently to increase that public sector productivity.

As I have intimated, the industry employment patterns will favor predominantly larger than average growth in services and in trades and in government. Our manufacturing is expected to grow at about the rate of all employment in the neighborhood of 20 percent, and production industries and agriculture will continue to go down the ladder in absolute as well as relative terms.

Occupationally, the shifts, as you can extrapolate from the industry trends, will continue to be towards the white-collar worker. In the past several years, the labor has been divided around the 50-50 mark between blue-collar and white-collar workers, and that shift to white collar will

continue. It is significant to note, however, that even among the blue-collar workers, the occupational growth areas will be in those jobs that require more training, more skills, and more education, which is also true of the white-collar jobs that will be growing more prevalent.

So we have a picture of considerable optimism economically over this decade in terms of the demand, albeit there will be shifts in the structure of industry that will continue to cause local dislocations.

On the supply side, the people's side, perhaps the prospects for the future do not start out in quite such glowing terms. We have presently a universal need for manpower services, of something like 10,000,000 people and that is an impressionistic rather than an analytical figure. It is composed of the poor population that is either unemployed or not in the labor force, so-called disappointed unemployed, or discouraged unemployed (I do not want to get caught in the unemployed statistics) and significantly the working corps, people who have jobs, full-time jobs for the most part, although there is a lot of part-time work, but simply do not produce an income of sufficient size to support their families.

All told those poor people in the universal empire needs amount to just over 5,000,000 or over half of the total unemployment. The other half are nonpoor unemployed who have been out of work 15 weeks or more, as well as some other smaller groups.

By age this universe, the population that would be the logical target for manpower training, manpower development, and increased utilization, breaks down as follows: (1) The youths 16 to 21 account for about 2,000,000; (2) the major group, over half of them is in the most employable age group, is 22 to 44, and the remaining (3) 3,000,000 are so-called middle-aged and older workers. I am glad they put that middle-aged and older worker on there, giving where the age cut comes. It gives me a little bit of solace anyway, but as you can see in this cut what our people's problems are. Again the youth seem to constitute a smaller percentage than they would have with a similar picture ten years ago. A passing note: it might be observed that, if we estimate, the 2.9 million of this 10,000,000 people are of minority groups. Given this very rough look at the economy, we have to ask what degree of preparation does the nation have for facing its people properly. One of the things we know over the decade of the seventies is that between 3.8 and 4.2 million youths a year will be turning 18; that is to say, that is the presumed group that will be coming through the school systems. On the average, four million a year.

Clearly one of the most significant roles, perhaps the most significant role for the vocational education community as a whole and T&I as the significant part of that, is the preparation of those four million young people a year that are coming



through the school. That is in many respects a distinct and overriding target; a people target, it seems to me, of manpower development for the 1970's. This residual pool for the most part of 10 million that I spoke of earlier, while not an insignificant chore represents in many respects the -improperly prepared people of the past that we have to cope with. It's not static obviously. It will grow as the five-million dropouts help to keep these numbers up. But even with the size of that 10-million universal need for manpower programs, the 40-million young people that are coming through the school system constitute a much more clear and present first priority concentration for preparation of individuals for their world of work-their career of work.

It is clear that the vocational education system is the largest single source of prepared manpower in the economy. You know the statistics better than I do particularly after the Vocational Education Amendments of '63 and '68, how enrollments have gone up, something like 60 percent, from '65 to '70 at 8.8 million. The bulk of these being the school population. In comparison, as far as formal training is concerned, the correspondence schools at the last count in about 1969, that I have any record of, enrolled only about 1.I-million people and the proprietary vocational schools a few years earlier enrolled 1.6-million people.

So that it is perfectly clear that when we are talking about a magnitude training job like we are confronted with, it's the public vocational education system that is the only place there is to turn.

Since the '63 and '68 amendments, it seems to me there's been a good deal of progress made in orienting the curriculums more and more to interface directly with the job market and the demands from the job market. Indeed the statistics that we have on this are not all that conclusive, but they more than suggest in terms of a longitudinal study of Ohio State, that the individuals who secure relevant career preparation in school have very, very significantly lower unemployment rates. That was even true in 1970, which was not a banner year for new entrances into the labor market, where the rate of unemployment on vocationally prepared high school graduates the following semester and the following fall was about 15 percent. That was even considerably lower than the comparable rate of all high school graduates that hadn't gone on to college.

We know also that there is a great differential in terms of vocational graduates' unemployment experience in terms of their success in entering the job market between the several curricula in the public schools. We really do not have any significant data on the college prep course. By definition almost all of the college prep graduates are not directed to enter the job market immediately upon graduation from high. At the same time from the vocational schools, something like

36 percent of the graduates do go onto college and continue their education.

The general curricula and the statistics are conclusive that those who go through the general curriculum, even those high school graduates, have the highest unemployment rates and have the least success in entering the job market. This is doubtless the chief explanation of so much focus and concentration on the expansion of career education concepts to encompass the entire school population.

While we are talking about the training of individuals for jobs in this economy in an institutional setting, we are talking about the public vocational education system that exists; and that is the underlying fact that is now being recognized in manpower policy and in pending legislation although it is not there in print. As you all know manpower policy in the past two and a half years has taken a fairly dramatic turn; at least it has surfaced. I believe that the direction was established toward the end of the last administration and there is really not a discontinuity in policy thrust. That policy has been in a word, decentralized program control through state and local government. Here local government is notjust a junior member of the cast by just implementing what is imposed on it from above, but is a full-participant member in deciding how the resources are to be allocated. It was called the new federalism for awhile and it is called decentralization now or special revenue sharing or whatever other solicitous phrase one wants to hang onto it.

As I said, this trend was established in the past administration without much fanfare and certainly has been picked up by this one and carried on. I am sure that you all are very familiar with the developments over the last two years, kwer in the manpower area, namely, the Administration's Bill in 1969 that ultimately cleared the Congress and was vetoed at the end of 1970 and the Administration's Manpower Revenue Sharing Act, which was introduced in March of this year. In none of those proposed statutes was the vocational education system singled out, nailed up on the wall as it were and said you're primarily responsible for the institution of training input. I think that the same thing was true incidentally for the most part of the United States Employment Service and the State Employment Security Agency. This is partly because the legislators and the administrators kind of figure from a rule of thumb that these resources are really the heart of what there is out there to deliver services and, therefore, you do not have to say it over and over again.

This, to my reading, is the fact of life and you have to face it. To the extent that we really don't like it, it is up to us to do something about it and demonstrate that the institutions with which we are concerned have been connected and can indeed be more responsive to the perceived needs of the

country. There are still an awful lot of people on Capitol Hill, and indeed I would say that they have the majority of the votes, who will not accede to giving anybody a monopoly over part of this action, over any part of it.

They talk in terms reminiscent of the 19th-Century economists about the beauties of competition and while they recognize, I am sure, it does not penetrate their analysis that in order for competition to function, there have to be so many suppliers that no one of them can significantly influence the market. That situation just does not exist today, but that is easily ignored in the

legislative process.

So we have as a remedy to a disarray in what has been called manpower programs, something that is called decentralization and decategorization that refers to the complex array of programs that are basically programmed from the national level in terms of putting a budget together. At this level it is decided for a number of quixotic reasons that operating mainstream programs ought to have 38.6 million dollars this year; and the problem is to divide 38.6 million dollars up among various projects around the country and that is multiplied by all the alphabetical arrangements with which you are all familiar. That has been demonstrated to be unresponsive to the nation's manpower development needs. I use the term manpower development in contrast to what we might more quickly call manpower training because clearly, most of the manpower programs called manpower programs are not training programs. Depending upon the state of the business cycle in the country and more particularly in the community where the activities occur, any given mix of categorical programs may not be responsive to the needs of that community. That's one of the reasons for decentralization, perhaps, the primary one to decide to what purposes and to what objectives manpower resources and dollars shall be put in each community.

This group need not be reminded of the trend in funding man power programs over the last eight years, indeed ten years, with the early growth in the institutional program and then up until the last two years a certain stagnation. Although there was not any substantial cutback, all the additional resources went into other kinds of activities for good or for ill. It has become clear that this is not a reasonable way to allocate resources to deal with human development problems. That being the case, another way has to be found. The other way that this administration and the last administration were leaning toward was to look toward state government and local government—to duly constituted elected executive administrators to make those decisions on how manpower resources would be allocated among several uses over the next ten years.

Institutional occupational training certainly is one of the keys of manpower resources. A variety of other services stretching from transportation out of isolated ghettos (urban and rural), from where the people are to where the jobs are, is another; much farther relocation activities is yet another; day care support for particularly female heads of households who need to work and want to work but can't pull it off because such reported services are not available is yet another; and the list goes on and on. We haven't even gotten to on-the-job training and so-called work support or public service employment, all of which today are contenders for the manpower dollar.

Given this situation, the administration has taken a position that the only power center to which decisions on the allocation of resources among these contenders can be put is not in the proprietary establishment of any of the contenders but in the elected executives of the state and local government, surrounded albeit with manpower councils, advisory bodies, and something or other, hopefully, with checks so that the occasional corrupt politician who happens to get elected to high office can't make off with the loot or

seriously misallocate it.

Now, in that kind of configuration, given the antipathy toward established institutions that pervades certain parts of our broader national community, there is no guarantee or presumptive deliverer in any one of these segments of manpower programming. That in itself seems to be significant because two or three years ago, as recently as that, one of the presumptive deliverers of a rather current concept of services would have been community action agencies. That is no longer the case. I would guess that community action agencies have fallen into the same disrepute as all other established institutions insofar as appraisals of giving them a lock on resources and a guaranteed hand in the till, you might phrase it.

I realize that to vocational educators being put into the same thought sequence with community action agencies is not a very flattering comparison. I certainly do not mean to suggest any judgment of the relative merits of these systems, but I believe what I have been telling you is a reasonably accurate picture of the concensus on Capitol Hill;

the votes are counted.

We have puzzled a good deal and worked and put forth various kinds of purchasing service clauses and tried to write into such legislative mandate words that would tell on the one hand state employment services, and on the other hand the vocational education system. This is your job; you can not cop out on it. Over the last eight years we have gone through a good deal of travail with the employment service in so called redirecting to serve the disadvantaged population, the disadvantaged community. To a significant extent that has been successful. Minority placements in the employment service amounted to 37 percent last year, way up above what it has ever been before.

As a consequence of focusing of resources on the disadvantaged in that system, job orders—the amount of business the employment service does

and the amount of placements it does—have gone down almost catastrophically from 10 million job orders in 1964-65 to about six million job orders in the employment service today. There are those that don't view that with any particular alarm. They say the employment service ought to be only serving the disadvantaged anyway. Certainly, that is not my contention with respect to the vocational education system. The vocational education system, in my judgment, ought to be expanded to serve more of the regular population, not more sharply focused to serve some frequency track or cast in the population.

We certainly would welcome the thoughts and ideas that you vocational educators have on how to accomplish legislatively fixing significant responsibility on the vocational education system for carrying on this job; and I am talking about the 10 million, not the four million a year jobs, of the youth coming through the school system. Indeed I have had more than one intensive session with Lowell Burkett and members of his staff on this problem, and I know that they are very concerned about it as is Assistant Secretary Lovell.

In closing let me say that it seems to me that broadly speaking the most vital role that the vocational education system can play and what constitutes it such as T&I is what I would call joining, or maybe leading is a better way of expressing it, the movement to help stamp out the general curriculum. It's easier to talk about this than it is to do it. You can't replace something with nothing. Secretary Lovell and I served on a task force almost a year ago headed by Commissioner of Education Sid Marland and a good many other well-informed people in HEW to try to come up with some of the models for what ought to be done with vocational education. The report that went to the White House, unfortunately, was not that revolutionary; I think I would have to characterize it as being bought off for a year. That wasn't a very forceful outcome, but in the process a number of things emerged and I think Commissioner Marland is committed to the concept of building career education and that significantly means trying to move to comprehensive high school approaches that won't track young people into one kind of curriculum or another. It will provide all of them with some career such as vocational preparation on their way through so that those that do fall out along the wayside will not fall out or come out to the end absolutely naked in terms of having anything to wear as they go into the job market. And that even those that go onto college courses can well benefit from some vocational preparation in their high school days. So in terms of a role for vocational education in T&I on its broader front, its number one agenda it seems to me deals with the four million young people that are going to turn 18 in this decade. This all adds up to significantly amending the public school approach with its irrelevant tracking.

Insofar as dealing with the 10 million universal need and empire programs—that population which

displays most of the severe and intractable areas of personal and institutional need to becoming employed—it seems to me the role of vocational education and T&I is to carry, if not the exclusive role, certainly the major job institutional preparation specific job skills.

William Hewitt received his master's in economics from the University of Denver and has done work on his doctorate at American University in Washington, D.C. Mr. Hewitt began working with the Department of Labor in 1952 as a labor economist in the Bureau of Employment Security and has had various positions since then in the Department of Labor and is currently Acting Associate Manpower Administrator for Policy Evaluation and Research in the Manpower Administration.

### CONCLUSION— WHERE DO WE EXERT OUR EFFORTS?

#### JOE MILLS

I do not need to sum up anything, do I? I could not top it if I tried. I do want to take the opportunity to truthfully and honestly and sincerely thank Dean Griffin for the work he's done. Harry Davis said this to him this morning but truly as vice-president, members of T&I have a great deal to thank you for in terms of the tremendous staff we have at AVA. It is the smallest group of people I've ever seen doing the greatest amount of work and I would like at this time to honestly say, Dean, you've done a magnificent job. You took the ideas that we gave you a few months ago and put them into a very meaningful conference. I know I am enthusiastic about what's taking place here today and I sincerely hope that you, as members of T&I, feel the same way.

I was assigned a title "Where Do We Exert Our Efforts?" I was supposed to charge you up on the first day, and it was interesting to see that you were all asleep at that time and I was trying to wake you up, and now I have the extreme pleasure after two and a half days of trying to keep you awake, because you are all exhausted.

So here we go! The wrapping-up topic assignment, "Where Do We Exert Our Efforts?," to me is a matter for each of us to decide. We need to view the presentations and the discussions in light of our own T&I.

The direction of our efforts at home will perhaps be different for all of us. It would be impossible for me to outline how this should be done. You are the best judge of where your efforts and needs are and where you are going to make the most effective use of the information we hold today. The purpose of this meeting was to bring us up-to-date and to give us the perspective of various points of viewing trade and industrial education from outside our field. It is now up to each of us

to determine the best adaptation of our own situation. What will we do to improve trade and industrial educational environment back in our own community and how are we going to make it more productive?

I would like to just hit the highlights and the general focus as I see them. To me the single word message of the conference theme has been "involvement." Everybody else has used it; I wrote it down. It's involvement in the total spectrum of the political process. From our Capitol Hill excursions yesterday and Lowell Burkett's suggestions for continuing contacts to keep legislators abreast of the involvements at home, we need to consider the mayors, we need to consider the city managers, the county commissioners, or whatever the local power structure may be.

Now, total dedication as we saw it yesterday does not just happen. It develops from a generous amount of something one has in the field of nursing called, "tender loving care." It's administered at regular intervals, and I say this sincerely if you think you can only come to these people when you want something then you're mistaken but that tender loving care throughout this process should help us.

The force of the political coalition as presented by Ken Young has direct application at the local level for each of us. I take great particular pride in our prophet, Buddy MacKay because he's from Florida. He showed us how a vocationally "turned on" legislature can buck the tide and produce results for the benefits of programs and students by meeting a critical guidance need. Future progress in T&I will be determined not by how well we communicate with each other but by our success in reaching out to the community, the parents, and other areas of the educational establishment.

In addition, we need to foster feedback. We need to listen and we need to act. Our need to be turned on by this feedback comes through loud and clear from our industry speaker, Lindon Saline. Profit, the reason for existence in our free enterprise system, is now threading its way into all operations, including public education to this concept of accountability and in the form of productivity, another word you heard.

Product assessment, not only in terms of the student and to use a word that Tom Olivo said, "human resource development," but in the evaluation of our educational management functions is another thing we have been hearing over the last three days. People are telling us we must become educational managers. There is something that is taking place today in terms of the loss of dollars, and we are going to have to do a better job of managing. I think Lindon Saline, the other night, told us that we are going to have to do to turn out a better product with less money, which means we have a management job.

Alton Ice gave us an excellent view of the focus in the state advisory council structure and its operation. Our responsibilities as educational managers at every level has been a primary point in practically everything we have heard at this meeting. We all need to go home and take a long hard look at just how well we are doing this job and equally important, are we effective in training others in our field for management responsibilities. I have heard of the tremendous need for vocational educators and I wonder how well we are doing the job of training others to fill our shoes. As Vickie said, she's the only one under 30 here and as I look upon our audience, I do not see too many young men involved, and I think we do have that responsibility and this came through loud and clear. The rule of next season's ballgame and as I look to the Redskins over here; we are going to have to develop a new coaching system possibly as George Allen has done with the Redskins because we have got to develop some new all stars, and through career development we have got to bring in a new group of recruits in the freshman class.

Because last night's miniseminars covered a variety of important topics — and I might say they were not too well attended, and I lay this to the fact that some of you had battle fatigue walking up and down the halls of Congress — I think, gentlemen, those of you who did not attend missed some very effective meetings.

To mention one of the topics that we had last night and one that I am excited about is the construction industry collective bargaining commission. I sat in on that last night and realized that maybe through a little prodding from some fellow called the President of the United States, President Nixon, we now have a coalition of labor and management, who are saying to us we think that vocational education has the wherewithal to train people for the building trades industry and we want to work more closely with you on this. They gave a little handout called "Teamwork toward Tomorrow." For those of us who were there, we were excited. For the first time in some areas of the United States, we are getting recognition, and I think when you gave the applause to Buddy Mackay the other day in relation to what he was going to do about apprenticeship training you inferred that something was wrong. Well, industry and labor have recognized this and they are now doing something about it.

So I say to you it's important that you begin to find out about what took place last night because we had some good things.

The second item was the National Vocational Accreditation by Lane Ash; a very vital thing if we are going to keep our standards up. I would hope that you would get the information that Lane passed out last night.

Another thing that has been referred to is the matter of selection of teachers. We had the National Occupational Competency Testing Project explained to us last night as possibly one other source of determining the best quality teachers we might have, so if you did not attend this last night and I know you could not have attended them all, this is another vital thing taking

place. We also had the United States Office of Education Contract by the National Planning Association for the study of local effects of the '68 amendments. There were some good points there; you should be aware of these. These will be in your report so you will be able to read about them.

The final debriefing area that I want to touch upon is the career development program. I will not go into any of the details of the presentations, as I feel that we all need to give the materials more scrutiny and more thought and discussion with our colleagues at home before we come to a decision. No doubt there will be features you will find more important than others. I want to emphasize to you that our management responsibility to look into career development education and to offer suggestions was paramount the other day in some of the speeches. As I understood it, Bob Worthington and Mike Russo were asking for our help. They were not saying, fellow, this is something we are giving you. They were saying, "We want your help." We want you to give us your input to structure something which should have the best of all worlds.

To pick up what Buddy MacKay had to say about prophecy, I assume in terms of career development education we are in phase one—criticism. We are going to do a real good job of criticizing at this point, and I think that after we go through this phase of criticism we must enter into phase two, phase two being recommendations that we would make and also the offering of leadership if we accept what they're offering to us.

To briefly review the overall career education, I would like to point out to you a couple of things. First of all, you may or may not be aware because some of us are local directors and we sometimes do not get the benefit of the state information, but as a part of Commissioner Marland's effort my understanding is that he has allocated \$9,000,000 of his research and development money to the state and this has been prorated to the point where I think American Samoa gets \$19,000 and some dollars and I think California is getting about \$720,000. The idea being they are giving this to the states and it may come down to some of our local levels so that we can work on the development of this model, which means to me so mebody is not imposing something on me. Somebody's going to give me the opportunity to take the idea and to run with it. Fortunately, in Florida about three weeks ago to show how fast it operates, I was called by the state director who said Joe, will you work on a model of this career development in your community? We'll give you the \$280,000 allocated to Florida, and being a good vocational educator I did not say no. We have the \$280,000. The thing I am pointing out to you fellows is we sort of had a feeling the other day that something was cast in concrete and that phrase was used. I can not see something cast in concrete that we have not been given the opportunity to put input into. So I say on this career development thing, it is important that we go forward. We are looking forward to the opportunity to expand vocational education services. We are looking forward in our county, and I really tend to dread it, to the fact that if we create this thing in the elementary level, we are going to turn on more young people and I do not know what we are going to do in specialized training at the senior high level when these young people begin to filter up five or six years from now. We may really have to put on some bond drives and some millage levies to create the facilities to meet the needs of these young-

But the fact remains that we have neglected young people. We have served a very narrow group and I think now in the state of the nation today we need to take this advice and look towards them. So fellows, your enthusiastic participation in this conference has been a factor in measuring the success of the conference. As I have walked around here and seen you participate and have dropped in on meetings, I find that there is great enthusiasm. I find that we were somewhat negligent in not picking up the ball before in having a national conference, but I think that AVA has now taken a great leadership role for all of our services and as your duly elected vicepresident from now until the end of my three year term, I want your help. I want your push and I make no attempt to guide your direction further, since, as Mr. MacKay said, "You can't push an object that is moving faster than you are." I honestly feel you're going faster than the total nation in this regard and a lot of people are going to have to push to catch up and I doubt if they will have the opportunity to push. I want to thank you for coming to a very successful conference as far as everybody's concerned and sincerely hope that you'll have a very safe journey home.

#### **MINISEMINARS**

## I. NATIONAL OCCUPATIONAL COMPETENCY TESTING PROJECT

Chairman: CHARLES JONES Speaker: ADOLF PANITZ

## THE NEED FOR OCCUPATIONAL COMPETENCE

Where can we get competent help? Despite the present unemployment this call comes from industry, commerce, business, and from the military. The emphasis is on competency—the right kind of competency. Industry, business, and commerce must place the right person in the right job. The military must use civilian skills in many ways. In fact, Lt. General Simpson focused the plight of the Marine Corps in its manpower utilization by pleading for better tools for the evaluation of occupational competence. It is needless to elaborate that the success of vocational programs rests upon the occupational competency of its teachers.

## HOW TO EVALUATE OCCUPATIONAL COMPETENCE

Evaluating a tradesman's occupational competency, whether for employment in industry, for admission to industrial teacher education programs, state certification, or advanced standing in degree programs has been largely a matter of personal judgment. Whether the candidate was interviewed, or his experience record and employer recommendations evaluated, or given a written and/or performance test, the results have been uncertain and subjective.

While there is a widely held opinion that well-constructed written and performance tests, based on a thorough analysis of all the components which constitute occupational competency, can provide effective, reliable, and valid measures for such evaluation, the efforts, so far, have been less than satisfactory.

A number of states have developed, and are now using, such tests. However, the consensus among vocational administrators and industrial teacher educators has supported observations over many years that few states have the expertise, financial resources, or facilities to develop truly reliable, valid comprehensive examinations that can be efficiently administered and provide test scores that can be readily interpreted.

Through the efforts of Carl Schaefer, Rutgers University; C. Thomas Olivo, Temple University; Melvin Barlow, University of California at Los Angeles; and Richard Nelson, State Education Department, California, a grant was obtained from the United States Office of Education which led to the organization of the National Occupational Competency Testing Project.

# THE FUNCTION OF THE NATIONAL OCCUPATIONAL COMPETENCY TESTING PROJECT

Objectives and Goals

The project was charged with the responsibility to determine the state of the art of occupational competency testing, develop and pilot test two comprehensive competency examinations in two major occupational areas, prepare a handbook for the development and administration of occupational competency tests, and explore the feasibility of establishing a consortium of states for the administration of a National Competency Testing Program. This project represents a national commitment to occupational competency evaluation through written and performance tests.

The Findings of the Survey

Scope of the Survey. "The State of the Art of Occupational Competency Testing" represents the first effort, on a national scale, to determine the present state of occupational competency testing in industry, labor unions, civil service—on the local, state, and national level—the military, the vocational divisions of state education departments, and industrial teacher education departments in colleges and universities. Included was a thorough search of the available literature.

Number of states using tests. Despite frequent critical comment on competency examinations, 18 states with a total of 24 test centers utilize examinations for a variety of purposes. Yet, only four states have one full-time qualified professional for the administration and development of

Duplication of effort. The most significant part of the survey revealed a startling duplication of effort. The following shows the extent of duplication of test preparation:

Number of institutions	Type of test
20	Machine Shop
16	Automotive Trades
12	Electrical Trades-Construction
11	Drafting-Mechanical
11	Electronics
10	Printing

For none of these tests was there any evidence available to support their validity, or reliability, or that one test was superior to another.

Variations in test scope and content. An analysis of 12 written machine shop and five electronics tests revealed equally astounding variations in content and number of questions for occupations little affected by geographic differences. Considering the cost in manpower, time, and effort, the need for a consolidated national effort is obvious.



# IIANDBOOK FOR OCCUPATIONAL COMPETENCY TEST DEVELOPMENT AND ADMINISTRATION

The search of the literature revealed a paucity of publications. The "Handbook" (the only publication of its kind at the present time) incorporates the best in prevailing practices and contains practical examples, helpful to those working in the field of test construction.

#### PILOT TEST DEVELOPMENT

Selection of Occupational Areas

The Planning Committee selected one occupation involving a high degree of diversified skills and technical information—machine trades—and another occupation with less complex skills but involving a high degree of theoretical as well as technical knowledge—electronics occupations (communications).

Test Development Procedure

An advisory committee, consisting of representatives from industry, occupational specialists, test specialists, and vocational teachers, established the nature and scope of the examination, established job clusters, as well as competency levels.

 Specialists from the field, test technicians, and vocational teachers made an analysis of the occupations to determine the behavioral and conceptual factors at each competency level.

3. Specialists from the field, test technicians and vocational teachers formulated a test specification, developed a test grid for the areas to be tested and the number of questions needed for a comprehensive determination of an individual's occupational competence.

4. A group of subject specialists, under the guidance of a test specialist, formulated the test questions and organized the tests.

5. The tests were then administered to a recognized competent and knowledgeable individual in the occupational specialty.

 The results were evaluated and the test question and sequence revised.

 The revised tests were then submitted to professional testing organizations— Psychological Corporation, New York; and Educational Testing Service, Princeton, New Jersey—for further appraisal and evaluation.

### A NATIONAL COOPERATIVE EFFORT THROUGH THE STATES

Pilot Area Test Centers

During Phase I of the project the feasibility of testing on a national scale was established. This approach to a national testing effort is now expanded by the establishment of ten Pilot Area Test Centers throughout the country. Each Center is developing a test in a major occupational area and will administer the tests developed by the other Centers, thus providing a broader base for reliability and validity studies of the test results.

Location of Pilot Area
Test Centers by States

The Pilot Test Centers are located in the

Washington

Wisconsin

following states:

California New York
Colorado Nebraska
Connecticut Ohio

Connecticut Ohio
New Jersey Tennessee

Determination of Major Occupational Areas for Test Development

All states were asked by mail to indicate the major occupational areas for which there was a need for tests. From this survey, a list of priorities was established. The major areas in industry for which tests are now in the completion stage are the following:

Automotive - Auto Mechanic
Aircraft - Airplane Mechanic
Building - Electrical Installation

Masonry Carpentry

Drafting - Mechanical Drawing
Electronics - Electronics (Industrial)

Graphic Arts - Printing
Metals - Welding
Personal Service - Cosmetology

Future Tests To Be Developed

Following the completion of Phase II, the plans for Phase III call for completion of 12 additional industry occupation tests in the following major areas:

Automotive - Auto Body

Diesel Engines (Maintenance & Repair) Small Engine Repair

Building - Air Conditioning

Plumbing Sheet Metal

Drafting - Architectural Drafting
Electrical - Electrician (Industrial)
Graphic - Commercial Art

Household Service - Appliance Repair
Clothing Industry - Garment Production and
Design

Food — Quantity Food Cooking
Wood — Cabinet Making and
Millwork

Technical – Mechanical Technology,
Architectural Tech-

nology, Civil Technology

Additional Pilot Area
Test Centers Needed

To broaden the bases upon which to build a National Testing Center, it is essential to establish additional area test centers for the remaining tests and their pilot testing. Efforts are continuing to enlist the cooperation of other states in Phase III of this program. Those states interested in test



development and willing to establish a Pilot Area Test Center will, hopefully, make their willingness to cooperate known to the National Occupational Competency Testing Project.

#### **CONSORTIUM OF STATES**

Occupational Competency Testing on a national scale must involve the active participation of the states. Only through a consortium of states is it possible to provide an administrative vehicle, develop administrative policies, establish guidelines, set essential controls, and lay out plans for implementation. At a consortium meeting in Chicago, March 12-14, 1970, sponsored by the National Occupational Competency Testing Project, the representatives of 32 states developed some preliminary guidelines for the establishment of a consortium. These guidelines have been referred to the states for further consideration. Additional meetings have been held in St. Louis. Missouri, in May 1971. The number of states and territories which have designated representatives has grown from 32 to 44. The interest is growing still. Additional meetings are planned for early 1972.

#### **FUTURE PLANS**

Efforts will be continued towards the organization of a test development center that will function under the administration of a consortium of states.

Work will be completed on establishing validity, reliability, and uniform scoring techniques, norms will be established, guidelines for using the tests prepared and interpretive materials developed.

The tasks just completed were formidable. Those ahead still seem monumental. However, a breakthrough has been achieved. The goal is attainable but only your continuing interest and support can make a National Program of Occupational Competency Testing a reality.

# II. THE NATIONAL STUDY FOR ACCREDITATION OF VOCATIONAL-TECHNICAL EDUCATION

Chaiman: W. G. RHODES Speaker: LANEC. ASH

The AVA is engaged in a research project which aims to develop evaluative criteria and guidelines for standards and procedures which can be applied to vocational-technical education at all levels and regardless of its setting. This project is of considerable importance in view of the present wide diversity in procedures and standards used for accrediting vocational institutions and programs.

The need has long been felt for a comprehensive and coherent plan for such accreditation on a national scale. The regional associations and the National Commission on Accrediting have asked that we undertake the development of these materials which hopefully will become acceptable to all concerned accrediting bodies.

Following a review of all materials obtainable pertaining to evaluation and accrediting and upon the advice of consultants in vocational-technical education and in general areas of accreditation, we have developed three documents that are in the nature of working papers, ultimately to be refined and put into such shape as they will become evaluative instruments.

First, we have a statement of rationale for accreditation. Next we have a 100-page document titled: Characteristics of Vocational-Technical Education: Identifying Guidelines. This is merely an aggregation of all of the characteristics of quality programs that we could learn about, and then for each of these characteristics there are guidelines or suggestions by which evaluators might determine the existence of quality in the program. Finally, and most recently, we produced a document titled: Evaluative Instruments and Procedures for Vocational-Technical Education: Institutions and Programs.

This latter document is in the nature of an evaluative instrument which may be used in the institutional self-study and by qualified evaluators in the institutional on-site visit. It has been reviewed by numerous persons who have given suggestions for its improvement and some of these will be incorporated in a manuscript to be sent to the printer for publication for subsequent use. The title of this will be changed to: Instruments and Procedures for the Evaluation of Vocational-Technical Education: Institutions and Programs. This contains three forms. One of these is to be used for the evaluation of an institution, the second one for the evaluation of a particular program within an institution, and a third, a form which permits instructors and other professionals on the school staff to assess their own work and needs.

It is planned to field-test these instruments in some cooperating institutions to determine whether we have a usable evaluative instrument here or not. Institutions will be selected on a basis of variation in program and level. For example, we should like to select a secondary school having a vocational department. We would like to select an area vocational school on the secondary level. We would like to select an area vocational-technical institution that is entirely postsecondary. We would like to have a Junior or Community college which has both a liberal arts transfer program and a technical education program. In addition to these, there will be two private proprietary schools, probably one offering five or more occupational programs, and the second one a school which offers a new and sophisticated occupational program.

Field-testing will disclose improvements which are needed in our materials. These will be made and when we are satisfied that we have something more than just mere working drafts as at present, we shall disseminate widely the results of our efforts. At least there will be a national conference

devoted to the subject and two regional conferences. Other dissemination activities will be engaged in.

Upon completion of this, which is what the project proposal calls for, it is hoped that we can

continue this work in some way so as to keep these developments alive in order to further test our instruments and to gain increasingly widespread use of this procedure for the evaluation of programs of vocational and technical education as a part of the accreditation process.

#### **APPENDICES**

# Appendix A CONFERENCE PROGRAM

Sunday, October 17

6:00 p.m.-9:00 p.m.

"LEST AULD ACQUAINTANCE BE FORGOT"

Cash Bar

(Jefferson Room)

6:00 p.m.-9:00 p.m.

**REGISTRATION** 

(Lobby)

5:00 p.m.-6:00 p.m.

PLANNING MEETING

Discussion Group Chairmen and Recorders

(Cardinal I Room)

8:00 p.m.-9:00 p.m.

PLANNING MEETING

General Session Chairmen

(Cardinal I Room)

Monday, October 18

8:00 a.m.-12 Noon

**REGISTRATION** 

(Lobby)

9:00 a.m.-10:15 a.m.

**GENERAL SESSION** 

(Alexandria Room)

Chairman: JOE MILLS

Introductions and Acknowledgements and Charge to the Conference: JOE MILLS

Greetings from AVA: T. CARL BROWN

Welcoming Remarks and Introduction of Speaker: LOWELL A. BURKETT

"Vocational Education in the Career Education Concept"

ROBERT M. WORTHINGTON

10:15 a.m. COFFEE BREAK

10:30 a.m.-12 Noon

THE CAREER EDUCATION MODELS

Group A-MICHAEL RUSSO

(Washington Room)

Group B-SIDNEY C. HIGH, JR.

(Alexandria Room)

Group C-WILLIAM A. DENNIS

(Cardinal I Room)

12:15 p.m.-1:30 p.m.

**LUNCHEON** 

(Jefferson Room)

Chairman: C. THOM AS OLIVO

"The Role of Trade and Industrial Education"

MICHAEL RUSSO

1:45 p.m.-5:00 p.m.

**DISCUSSION GROUPS** 

Objective-To establish direction and encourage transition for T&I Education during

the coming decade

Group I

(Washington Room)

"The Role of T&I Programs in Career Education"

Chairman: JAMES HERMAN
Recorder: ODIN STUTRUD
Resource: MICHAEL RUSSO

Group II

(Alexandria Room)

"The Scope of T&I Education"

Chairman: HARRY DAVIS

Recorder: B.C. MESSER

Resource: GEORGE BRANDON

Group III

(Cardinal I Room)

"Meeting the Needs in Teacher Education"

Chairman: MELVIN BARLOW Recorder: WAYNE KYLE Resource: C. THOMAS OLIVO

**Group IV** 

(Cardinal II Room)

"Providing Leadership in the Development of Youth Organizations"

Chairman: LARRY JOHNSON
Recorder: CORBIN McKINNON
Resource: ROSALIE C. RISINGER

Group V (Lee Room)

"Meeting the Needs of People in Target Groups"

Chairman: BENJAMIN WHITTEN
Recorder: LUTHER HARDIN
Resource: JOHN STANDRIDGE

Group VI (Room 219)

"Utilizing On-the-Job Training in T&1"
Chairman: GORDON McMAHON
Recorder: ROBERT H. PRICE
Resource: ANTHONY WESOLOWSKI

Group VII (Room 319)

"Meeting Labor Market Needs" Chairman: DON RATHBUN

Recorder: J. JACKSON TOWNSEND

20%

Resource: CHARLES JONES



Group VIII

(Room 419)

"Advisory Committees for T&I Programs"

Chairman: BILL ROARK Recorder: JOHN BRISCOE Resource: LANE ASH Resource: JOHN BRISCOE

7:00 p.m.-8:30 p.m.

**DINNER** 

(Jefferson Room)

Chairwoman: ROSALIE C. RISINGER Introduction of Speaker: W.G. RHODES

"Industry's Concepts of T&I Education in the Development of Human Resources" LINDON SALINE

Tuesday, October 19

9:00 a.m.-10:30 a.m.

**GENERAL SESSION** 

(Alexandria Room)

Chairman: JOHN STANDRIDGE

"Politics and Vocational Education"

**KENNETH YOUNG** 

"Trade and Industrial Education, State Advisory Councils for Vocational Education:

Relationship and Emphasis"

**ALTON ICE** 

"Relationship of Trade and Industrial Educators to the State Legislative Process" THE HONORABLE KENNETH MAC KAY, JR.

10:30 a.m. COFFEE BREAK

10:45 a.m.-12 Noon

CONTINUATION OF GENERAL SESSIONS

Remarks and Introduction of Speaker: LOWELL A. BURKETT

"The Importance of Vocational Education to the Economic and Social Fabric of the United States"

THE HONORABLE ROMAN PUCINSKI

12 Noon-6:30 p.ni.

VISIT WITH INDIVIDUAL MEMBERS OF CONGRESS

7:30 p.m.-9:00 p.m.

MINISEMINARS (Attend the one you wish)

"Vocational Impact Study, National Assessment of Vocational Education

Since 1968 Amendments"

(Lee Room)

Chairman: ANTHONY WESOLOWSKI

Speaker: JOHN TEEPLE

"The National Study for Accreditation of Vocational Technical Education"

(Cardinal I Room)

Chairman: W.G. RHODES Speaker: LANE ASH

III. "The National Occupational Competency Testing Project"

(Cardinal II Room)

Chairman: CHARLES JONES Speaker: ADOLPH PANITZ



IV. "Construction Industries Collective Bargaining Commission-Their Program on

Vocational Education"

(Room 219)

Chairman: BILL ROARK

Speaker: DAVE LAFAYETTE

V. "More Good Plumbers and Fewer Bad Philosophers-A View for the Future"

(Room 319)

Chairman: BENJAMIN WHITTEN Speaker: WALTER H. COX

Wednesday, October 20

7:00 a.m.-8:30 a.m.

**BREAKFAST** 

(Jefferson Room)

Chairman: HARRY DAVIS

"The Role of T&I Vocational Education Programs in Meeting Manpower Needs"

WILLIAM HEWITT

9:00 a.m.-12:30 p.m.

**GENERAL SESSION** 

(Alexandria Room)

Chairman: C. THOMAS OLIVO

"This Is the Way We See It"

Panel

Chairman of Each Discussion Group

10:30 a.m. COFFEE BREAK

10:45 a.m.-12 Noon

CONTINUATION OF GENERAL SESSION

"Where Do We Exert Our Efforts?"

JOE MILLS

#### Appendix B

# NATIONAL TRADE AND INDUSTRIAL EDUCATION CONFERENCE PROGRAM PARTICIPANTS

Lane Ash, Director
National Study for Accreditation of VocationalTechnical Education
American Vocational Association
1510 H Street, N.W.
Washington, D.C. 20005
Melvin L. Barlow, Director
Division of Vocational Education
University of California
Los Angeles, California 90024
George L. Brandon
Professor of Vocational Education
The Penn State University
University Park, Pennsylvania 16802
John Briscoe, Secretary

State Advisory Council on Vocational Education

State Department of Education

Albany, New York 12224

T. Carl Brown, AVA President State Coordinator Cooperative Education Programs Department of Public Instruction Raleigh, North Carolina 27602 Lowell A. Burkett, Executive Director American Vocational Association 1510 H Street, N.W. Washington, D.C. 20005 Walter Cox, Director National Center for Career Information Services 715 East Seventh Street Bloomington, Indiana 47 101 Harry Davis, State Supervisor Trade and Industrial Education State Department of Education 65 South Front Street Columbus, Ohio 43215



William Dennis Education Program Specialist U. S. Office of Education Washington, D.C. 20202

Luther Hardin, Director Foothills Vocational Technical School 1800 East Moore Avenue Searcy, Arkansas 72143

James Herman, Chief Bureau of Industrial Education State Department of Education 721 Capitol Mall Sacramento, California 95814

William Hewitt, Acting Assistant Manpower Administration U. S. Department of Labor Washington, D.C. 20210

Sidney C. High, Jr., Chief Exemplary Programs and Services Branch Division of Vocational-Technical Education U. S. Office of Education Washington, D.C. 20202

Alton D. Ice, Executive Director
The Advisory Council for Technical Vocational Education in Texas
P.O. Box 1886
Austin, Texas 78767

Larry Johnson, Executive Director Vocational Industrial Clubs of America 105 North Virginia Avenue Falls Church, Virginia 22046

Charles I. Jones, Professor Marshall University Huntington, West Virginia 25705

Wayne Kyle, Director Post Secondary Education Western Iowa Tech 3075 Floyd Boulevard Sioux City, Iowa 51104

David Lafayette
Advisor to the Executive Director
Constructive Industries Collective Bargaining Commission
U.S. Department of Labor-Room 5220
14th and Constitution Avenue, N.W.
Washington, D.C. 20210

The Honorable Kenneth McKay House of Representatives State of Florida P. O. Box 1668 Ocala, Florida 32670

Corbin McKinnon, Director
Oil Belt Vocational Technical School
P.O. Box 1077
El Dorado, Kansas 71730

Gordon McMahon, Professor Division of Vocational Education State University College Oswego, New York 13126

B. C. Messer, State Supervisor Trade and Industrial Education Secondary Programs P.O. Box 771 Jackson, Mississippi 39205

Joe D. Mills, AVA Vice-President
Trade and Industrial Education Division
Executive Assistant Superintendent for Vocational,
Technical and Adult Education
1960 East Druid Road
Clearwater, Florida 33517

C. Thomas Olivo, AVA Past President Division of Vocational Education Seltzer Hall 316-D Temple University Philadelphia, Pennsylvania 19122

Adolph Panitz, Associate Director National Occupational Competency Testing Project Plaza Seven Office Building 1202, Route 7 Latham, New York 12110

Robert M. Price, ICT Coordinator Blacksburg High School Blacksburg, Virginia 24060

The Honorable Roman Pucinski (D-Illinois) U.S. House of Representatives Washington, D.C. 20002

Donald Rathbun
Director of Manpower Research Information
American Vocational Association
1510 H Street, N.W.
Washington, D.C. 20005

Rosalie C. Risinger, Principal Essex County Vocational-Technical High School 300 North 13th Street Newark, New Jersey 07107

W.G. Rhodes, Associate Director Public Relations and Information American Vocational Association 1510 H Street, N.W. Washington, D.C. 20005

William F. Roark, Director Manpower Development Division Structural Clay Products Institute 1750 Old Meadow Road McLean, Virginia 22101

Edwin L. Rumpf
Acting Director, Division of Vocational and
Technical Education
U.S. Office of Education
Washington, D.C. 20202



Michael Russo, Chief Programs Services Branch Division of Vocational-Technical Education U.S. Office of Education Washington, D.C. 20202

Lindon E. Saline, Manager Education Services Management Development Institute General Electric Corporation P.O. Box 151 Ossining, New York 10562

Carl Schaefer, Professor Graduate School of Education Rutgers University East Brunswick, New Jersey 08901

John Standridge, District Superintendent Dade County Public Schools Lindsey Hopkins Building 1510 N.E. Second Avenue Miami, Florida 33 132

Odin Stutrud, Teacher Educator North Dakota State School of Science Wahpeton, North Dakota 58705

John Teeple, Principal Investigator
Vocational Education Study
Center for Priority Analysis of the National
Planning Association
1666 Connecticut Avenue, N.W., Suite 300
Washington, D.C. 20009

J. Jackson Townsend, State Supervisor Vocational Industrial Education Division of Vocational Education State Department of Education Capitol Building Charleston, West Virginia 25305

Anthony Wesolowski Industrial Cooperative Teacher Coordinator R.R. No. 3, Box 595 LaPorte, Indiana 46350

Benjamin Whitten, Area Superintendent Baltimore City Public Schools 2330 St. Paul Street Baltimore, Maryland 21218

Robert M. Worthington
Associate Commissioner
Bureau of Adult, Vocational and Technical
Education
U.S. Office of Education
Washington, D.C. 20202

Kenneth Young, Assistant Director Department of Legislation AFL-CIO 815 16th Street, N.W. Washington, D.C. 20006

#### Appendix C

# NATIONAL TRADE AND INDUSTRIAL EDUCATION CONFERENCE REGISTERED PARTICIPANTS

Richard B. Adams Coordinator San Diego County Schools 6401 Linda Vista Road San Diego, California 92111

Edward Anzicek
Director, Division of Applied Technology
Macomb County Community College
14500 Twelve Mile Road
Warren, Michigan 48093

Michael M. Aronica Director of Vocational Education 175 Route 32 North New Paltz, New York 12561

Kenneth L. Aten
President
Mid-Plains Vocational-Technical School
2121 Beverly Boulevard
North Platte, Nebraska 69101

Roy E. Ayres State Supervisor Trade and Industrial Education 1515 W. Sixth Street Stillwater, Oklahoma 74074

M. S. Bagby Representative, American Technical Society Box 143 Titusville, New Jersey 08560

Thurman J. Bailey Administrator, Industrial Education Department of Education Tallahassee, Florida 32304

Melvin L. Barlow Professor, UCLA 3264 Mountain View Avenue Los Angeles, California 90066

F. E. Bartholow Supervisor, Program Development Adult Education 602 Woodland, Apt. 2 Wooster, Ohio 44691



Roger E. Bauer Exemplary Project Supervisor Helena Vocational Technical Center 1115 N. Roberts Helena, Montana 59601

John W. Bell Director, Industrial Education 1800 Grand Avenue Des Moines, Iowa 50307

H. Dean Bigham Vocational Director, Amarillo Public Schools 910 W. 8th Amarillo, Texas 79101

Walter Billiet
Director of Schools
33 Rockleigh Drive
Trenton, New Jersey 08628

David Bjorkquist Industrial Education Department 125 Peik Hall University of Minnesota Minneapolis, Minnesota 55455

Francis A. Bosdell Assistant Teacher Educator Industrial Education Department 107 Freeman Hall Clemson University Clemson, South Carolina 29631

H. A. Braggins
Director, Board of Cooperative
Educational Services
Occupational Education Center No. 1
Main Office, Courtview School
Court Street Road
Syracuse, New York 13206

George L. Brandon Professor of Vocational Education Pennsylvania State University 249 Chambers Building University Park, Pennsylvania 16802

Donald M. Brill
Assistant State Director
Wisconsin Board for Vocational, Technical and Adult Education
137 E. Wilson Street
Madison, Wisconsin 53703

John C. Briscoe Secretary New York State Advisory Council for Vocational Education 49 Roweland Avenue Delmar, New York 12054

Einar Brosten Assistant Director Helena Vocational-Technical Center 1115 Roberts Helena, Montana 59601

T. Carl Brown
State Coordinator
Cooperative Education Programs
Department of Public Instruction
Raleigh, North Carolina 27602

Clarence E. Burdette Director, Career Technical and Adult Education Kanawha County Schools 200 Elizabeth Street Charleston, West Virginia 25311

B. Verner Burkett, Jr.
Assistant Professor
Clemson University
Clemson, South Carolina 29631

Earl W. Cameron Associate Professor, Engineering Technology Virginia Commonwealth University 901 West Franklin Street Richmond, Virginia 23220

F. David Charles Director of Vocational Education Fenton High School 3200 W. Shiawassee Avenue Fenton, Michigan 48430

Fred P. Colburn Assistant State Supervisor P.O. Box 2847 University, Alabama 35486

Albert Cowdell Teacher, B.O.C.E.S. 393 Jericho Turnpike Mineola, New York 11501

Walter Cox Director National Center for Career Information Services 715 East Seventh Street Bloomington, Indiana 47101

Kathryn Crown Interpreter, MSSD Gallaudet College Washington, D.C. 20002

Harry F. Davis
Assistant Director, Vocational Education
Trade & Industrial Education
65 South Front Street
State Office Building, Room 610
Columbus, Ohio 43215

Francis J. Day
Director of Vocational Education
67 Parkerhouse Road
Rochester, New York 14623

William Dennis Education Program Specialist U.S. Office of Education Washington, D.C. 20202

Gary M. Diehl Assistant Executive Director Vocational Industrial Clubs of America 105 North Virginia Avenue Falls Church, Virginia 22046



Eugene E. DuBois
Associate Professor of Education
Boston University
Member, Massachusetts Advisory Council
on Vocational and Technical Education
39 Commonwealth Avenue
Chestnut Hill, Massachusetts 02167

Paul F. Ebeling
Dean of Occupational Education
Macomb County Community College
14500 Twelve Mile Road
Warren, Michigan 48093

Starr S. Ellard Guidance Counselor 1541 Valley View Circle Birmingham, Alabama 35209

Bill Eltzroth
Director, Vocational Education
Structural Clay Products Institute
1750 Old Meadow Road
McLean, Virginia 22101

Richard B. Engard
Director, Vocational & Adult Education
Chesterfield County Schools
Chesterfield, Virginia 23832

Lloyd W. Enoch Director of Vocational and Adult Education Roanoke City Public Schools P.O. Box 2129 Roanoke, Virginia 24009

Frank E. Ensminger Principal Middle Bucks Area Vocational-Technical School Box 317, York Road Jamison, Pennsylvania 18929

Cecil H. Erickson
Assistant Supervisor—T&I Education Service
State Department of Education
8607 Julian Road
Richmond, Virginia 23229

Wendell L. Esplin
Dean, School of Technology and TradeTechnical Education
Weber State College
3750 Harrison Boulevard
Ogden, Utah 84403

David P. Evans
Economist, Manpower Statistics
Bureau of Labor Statistics
Room 2734—GAO Building
441 G Street, N.W.
Washington, D.C. 20212

William N. Fenninger
Executive Secretary
American Technical Education Association
Box 31
Delmar, New York 12054

Eugene C. Fisher
Vocational Industrial Teacher Educator
3202 Crane
Bryan, Texas 77801

Gerald D. Flack Curriculum Coordinator 11555 Ralston Carmel, Indiana 46032

Harmon R. Fowler Head, T&I Education University of Georgia 105 Sussex Drive, Apartment 5 Athens, Georgia 32604

Elliott French
Director, OSA-BAT
Manpower Administration
U.S. Department of Labor
14th & Constitution Avenue
Washington, D.C. 20210

Jean E. Frick Area Supervisor Trade & Industrial Education 2310 N. 8th Street Coeur d'Alene, Idaho 83814

Harold Garbett
Assistant Director
School of Vocational-Technical Education
Idaho State University
Pocatello, Idaho 83201

Thomas M. Gibney
Guidance Counselor
Attleboro Vocational-Technical High School
Attleboro, Massachusetts 02703

John Gibson Director, D.A.V.E.A. Post Office Box 500 Wheaton, Illinois 60187

Nancy Gilgannon Counselor 22 Elm Street, Fairview Heights Mountain Top, Pennsylvania 18701

Fred L. Gordon State Supervisor Trade & Industrial Education 79 Grove Street Mahtomedi, Minnesota 55115

Donald B. Grant Teacher Withlacoochee Vocational-Technical Center Inverness, Florida 32650

McClelland M. Gray Assistant Supervisor Trade & Industrial Education State Department of Education Richmond, Virginia 23216



Ronald E. Greathouse Occupational Education Coordinator Longview Community College 500 Longview Road Lee's Summit, Missouri 64063

Alson E. Green, Jr. Program Supervisor 1625 South West 351st Federal Way, Washington 98002

Lee Gresser
Executive Program Director
Suburban Hennepin County
Area Vocational Technical Schools
1820 North Xenium Lane
Minneapolis, Minnesota 55441

Garland G. Hammer
Director of Industrial & Vocational Education
Lubbock Public Schools
1628 19th Street
Lubbock, Texas 79401

Luther Hardin
Director
Foothills Vocational Technical School
1800 East Moore Avenue
Searcy, Arkansas 72143

Dale G. Harris
T&I Post Secondary Consultant
Career Education Division
Department of Public Instruction
Grimes State Office Building
Des Moines, Iowa 50319

Richard Harris Assistant Professor Trade-Technical Education Ferris State College Big Rapids, Michigan 49307

Davis H. Hart
Director
Mexico Area Vocational-Technical School
905 North Wade Street
Mexico, Missouri 65265

James A. Herman Bureau Chief Bureau of Industrial Education 721 Capitol Mall Sacramento, California 95814

Elaine M. Hershey Pinellas School Board City Center for Learning 850 34th Street St. Petersburg, Florida

William Hewitt Acting Assistant Manpower Administration U.S. Department of Labor Washington, D.C. 20210 Sidney C. High, Jr.
Chief, Exemplary Programs and Services Branch
Division of Vocational-Technical Education
U.S. Office of Education
Washington, D.C. 20202

W.O. Hogbin Program Officer U.S. Office of Education 7th & D Streets, S.W. Washington, D.C. 20202

John Hone Teacher-Coordinator 105 Brook Street W. Sayville, New York 11796

John H. Hopper Superintendent, Central Oklahoma Area Vocational-Technical School P.O. Drawer 1237 Drumright, Oklahoma 74030

Ronald M. Hutkin Assistant Professor Vocational-Technical Education Indiana State University Terre Haute, Indiana 47809

Alton D. Ice
Executive Director, Advisory Council for
Technical-Vocational Education in Texas
P.O. Box 1886
Austin, Texas 78767

Robert L. Illinik Superintendent Regional Occupational Center of Kern P.O. Box 266 Bakersfield, California 93302

Monte Janik Chief State Supervisor, Industrial Education R.R. 31, Box 99 Terre Haute, Indiana 47803

Delmar Johnson Director of Prosser Vocational Center 128 Edgemont Drive New Albany, Indiana 47150

Everett B. Johnson Specialist, Baltimore City Public Schools 2330 St. Paul Street Baltimore, Maryland 21212

Larry W. Johnson
Executive Director
Vocational Industrial Clubs of America
105 North Virginia Avenue
Falls Church, Virginia 22046

Ronald L. Johnson Assistant State Supervisor Trade & Industrial Education 117 North Greeley Street Stillwater, Minnesota 55082



Charles I. Jones
Chairman
Department of Vocational-Technical Education
88 Belmont Drive
Huntington, West Virginia 25705

Gene Karas Vocational Coordinator 670 Crescent Glen Ellyn, Illinois 60137

Wayne Kyle
Director—Post Secondary
Western Iowa Tech
3075 Floyd Boulevard
Sioux City, Iowa 51105

A. T. Kynard T&I Teacher Educator Prairie View A & M College Prairie View, Texas 77445

William Kyros Supervisor, Trade & Industrial Education 47 Belmont Avenue Lowell, Massachusetts 01852

Gerald K. LaBorde
Assistant Professor
Industrial Education Department
University of Tennessee
Knoxville, Tennessee 37916

David Lafayette
Advisor to the Executive Director
Constructive Industries
Collective Bargaining Commission
U.S. Department of Labor
Room 5220, 14th & Constitution Avenue N.W.
Washington, D.C. 20210

Robert E. Laird Specialist in Trade & Industrial Education Maryland State Department of Education 600 Wyndhurst Avenue Baltimore, Maryland 21210

M. L. Lang Richmond Technical Center 2020 Westwood Avenue Richmond, Virginia 23230

George LaPatka Trade and Industrial Coordinator Willmar Technical Institute Willmar, Minnesota 56201

Gordon Law
Associate Professor of Education
Rutgers—The State University
Department of Vocational-Technical Education
10 Seminary Place
New Brunswick, New Jersey 08903

Jack R. Lewis, Jr.
Principal, Giles County Vocational School
P.O. Box 479
Pearisburg, Virginia 24134

J. C. Lindley State Supervisor Trade & Industrial Education 12 Wisteria Drive Montgomery, Alabama 36104

A. E. Lockert, Jr. Box 2048, State College Orangeburg, South Carolina 29115

Lloyd D. Logan Coordinator Vocational and Technical Education Danville High School Fairchild at Jackson Danville, Illinois 61832

Leon Lyvers Instructor Route No. 1, Box 130 Bardstown, Kentucky 40004

The Honorable Kenneth MacKay, Jr. House of Representatives State of Florida P.O. Box 1668 Ocala, Florida 32670

John L. Madison Assistant State Supervisor Trade and Industrial Education Route 8, Box 49 Jasper, Alabama 35501

Paul J. Manchak Education Specialist U.S. Office of Education 7th & D Streets, S.W. Washington, D.C. 20202

W. B. Mansfield Chief, Supervisory Development Division 1502 Laura Lane College Station, Texas 77840

Fred A. Martin
State Director
Trade & Industrial Education
State Department of Education
Frankfort, Kentucky 40601

Gerald Maystrik Principal, BOCES, Northwest 393 Jericho Turnpike Mineola, Long Island, New York

Louis A. McElroy
Director, Occupational Education
Educational Research Council of America
Rockefeller Building
6th & Superior
Cleveland, Ohio 441!3

Carl R. McEntire
Assistant Professor, Teacher Education
University of Tennessee
127 Madison Avenue
Memphis, Tennessee 38103



Kyle McGraw Program Specialist (Ind.) 6905 Valley Brook Drive Charleston, West Virginia 25312

Robert L. McKee EPDA Coordinator Washington Technical Institute 4100 Connecticut Avenue, N.W. Washington, D.C. 20008

Corbin McKinnon Director Oil Belt Vocational Technical School P.O. Box 1777 El Dorado, Arkansas 71730

Gordon McMahon Chairman, Vocational-Technical Education State University College at Oswego Oswego, New York 13126

B. C. Messer
State Supervisor
Trade and Industrial Education
Secondary Programs
P.O. Box 771
Jackson, Mississippi 39205

Roy A. Miller Teacher Educator 1221 Stillwell Avenue Fremont, Ohio 43420

Joe D. Mills
Executive Assistant Superintendent for
Vocational, Technical, and Adult Education
1960 East Druid Road
Clearwater, Florida 33517

Walter E. Miner Consultant Trade & Industrial Education Stickney Avenue Concord, New Hampshire 03301

Ken neth J. Minnaert
State Supervisor
Trade and Industrial Education
Office of the Superintendent of
Public Instruction
State Capitol, Helena, Montana 59601

Charles G. Moore Assistant Director Cabell County Public Schools 218 Bartow Drive Barboursville, West Virginia 25504

Felmon D. Motley T&I Coordinator P.O. Box 1365 Wilmington, Delaware 19801

William T. Newblom Assistant Supervisor Trade & Industrial Education 207 State Services Building Denver, Colorado 80203 Alfred F. Newton Head Teacher Educator Industrial Education Department 107 Freeman Hall Clemson University Clemson, South Carolina 29631

Raymond H. Nunley Director, Vocational Education Rutherford County Schools 502 Memorial Boulevard Murfreesboro, Tennessee 37130

George B. O'Connor Assistant Superintendent Essex County Vocational Schools 90 Washington Street East Orange, New Jersey

C. Thomas Olivo
Division of Vocational Education
Temple University
Seltzer Hall, 316-D
Philadelphia, Pennsylvania 19 122

Richard Olson Research & Development Specialist The Ohio State University The Center for Vocational & Technical Education 1900 Kenny Road Columbus, Ohio 43210

Devert Owens Teacher Educator 906 Celia Lane Lexington, Kentucky 40504

Adolf Panitz
Associate Director
National Occupational Competency
Testing Project
43 Calton Road
New Rochelle, New York 10804

Carolyn R. Parker
Administrative Assistant
D. C. Advisory Council on
Vocational Education
2215 Fifth Street, N.E., Suite 200
Washington, D.C. 20002

Edwin H. Parrish Assistant Superintendent Vocational and Adult Education Omaha Public Schools 3902 Davenport Street Omaha, Nebraska 68131

Robert S. Patterson Director, Vocational Industrial Education Texas Education Agency 201 E. 11th Austin, Texas 78701

Thomas Pecosh Vocational Director Box 795 Hillsville, Virginia 24343



Frank L. Perazzoli Education Specialist U.S. Office of Education Washington, D.C. 20202

Ray Perkins
Teacher Trainer
Texas A & M University
1303 Langford
College Station, Texas 77840

Don G. Pettingill Coordinator, Off Campus Studies Model Secondary School for Deaf Gallaudet College Washington, D.C. 20002

Arnold H. Potthast T&I Consultant 137 East Wilson Street Madison, Wisconsin 53703

Terrence L. Powell
Assistant Professor, Teacher Education
University of Tennessee
323 McLemore
Nashville, Tennessee 37203

Bill Powers Director, Kiamichi Vocational-Technical Box 490 Wilburton, Oklahoma 74578

Robert M. Price I.C.T. Coordinator Blacksburg High School Blacksburg, Virginia 24060

The Honorable Roman C. Pucinski U.S. House of Representatives Washington, D.C. 20515

Joe L. Reed Professor and Department Head Industrial Education C.E.B. No. 16 University of Tennessee Knoxville, Tennessee 37916

Robert M. Reese Chairman Vocational-Technical Education Department Ohio State University 1885 Neil Avenue Columbus, Ohio 43210

James A. Reeves
Director of Vocational Schools
Grenada Municipal Separate School District
Jackson Avenue
Grenada, Mississippi 38901

Michael Reis
Department Chairman
Technical & Industrial Area
2200 Bott Street
Colorado Springs, Colorado 80904

Leo C. Renaud
Chairman, Advisory Council on
Vocational-Technical Education
Saltonstall Office Building, Room 905
100 Cambridge Street
Boston, Massachusetts 02202

Jack E. Renner Placement Director 801 Parkview Drive New Castle, Indiana 47362

Donald D.Riggs
Assistant Professor of Industrial Education
CEB 16
The University of Tennessee
Knoxville, Tennessee 37916

Rosalie C. Risinger
Principal
Essex County Vocational & Technical
High School
300 North 13th Street
Newark, New Jersey 07107

William F. Roark Director Manpower Development Division Structural Clay Products Institute 1750 Old Meadow Road McLean, Virginia 22101

John A. Robins Supervisor, Richmond Technical Center 2020 Westwood Avenue Richmond, Virginia 23230

Richard Roder
Trade and Industry Coordinator
Route 1
New Richmond, Wisconsin 54017

James Rossbach Lead Teacher, Building Trades Suburban Hennepin County Area Vocational Technical Schools 1820 North Xenium Lane Minneapolis, Minnesota 55441

Michael Russo Acting Director Division of Vocational and Technical Education U.S. Office of Education Washington, D.C. 20202

Raymond J. Sacks
Director, Vocational Education
O'Fallon Technical Center
5101 Northrup
St. Louis, Missouri 63110

Lindon E. Saline
Manager, Education Services
Management Development Institute
General Electric Corporation
P.O. Box 151
Ossining, New York 10562

52

Alvie M. Sarchett Teacher Educator (Assistant Professor) Iowa State University Room 102, Industrial Education Building Ames, Iowa 50010

Carl J. Schaefer Professor of Education Rutgers University New Brunswick, New Jersey 08901

R. T. Scherer
Executive Director
Vocational, Industrial & Adult Education
Toledo Board of Education
Manhattan and Elm
Toledo, Ohio 43608

Don T. Scott Teacher Educator 439 West Third Street Perrysburg, Ohio 43551

Robert Scott
Associate Professor
College of Education
Kansas State University
Manhattan, Kansas 66502

Arthur T. Shack
Executive Secretary
Michigan Advisory Council for Vocational
Education
Department of Education
P.O. Box 420
Lansing, Michigan 48902

Richard V. Sheldon Director, Occupational & Continuing Education Oswego County BOCES P.O. Box 488 Mexico, New York 13114

J. W. Smith
T&I Supervisor
2312 Boulevard Avenue
Bismarck, North Dakota 58501

Thomas R. Snyder Supervisor, Adult Vocational Education 2675 Bernadette Road Columbus, Ohio 43204

Frederick L. Spector Director Attleboro Vocational-Technical High School Attleboro, Massachusetts 02703

John F. Standridge Vocational & Adult Education District Superintendent Dade County Public Schools 1410 Northeast Second Avenue Miami, Florida 33132

Odin Stutrud Teacher Educator 910 North 4th Street Wahpeton, North Dakota 58075 George W. Swartz State Supervisor Trade & Industrial Education State Office Building 8th and Broad Streets Richmond, Virginia 23216

John Teeple
Principal Investigator
Vocational Education Study
Center for Priority Analysis of the
National Planning Association
1666 Connecticut Ave., N.W., Suite 300
Washington, D.C. 20009

Henry V. Thompson T&I Teacher Educator Box 2048 State College Orangeburg, South Carolina 29115

J. Jackson Townsend
State Supervisor
Vocational Industrial Education
Division of Vocational Education
State Department of Education
Capitol Building
Charleston, West Virginia 25305

Raymond A. Vulgan I.C.T. Coordinator 801 Parkview Drive New Castle, Indiana 47362

Arthur L. Walker AVA Field Staff 1407 Westwood Avenue Richmond, Virginia 23227

Charles F. Ward Dean, School of Applied Sciences & Technology Morehead State University No. 3 Wilson Morehead, Kentucky 40351

A. D. Watson, Jr.
Teacher
Carver Vocational-Technical High School
Baltimore, Maryland 21239

Robert Wehrli Teacher 3105 Legation Street Washington, D.C. 20015

Richard F. Weigelt
Career Advisor
Regional Occupational Center of Kern
P.O. Box 266
Bakersfield, California 93302

Thomas H. Welshans
T&I Supervisor
205 Cordell Hull Building
Nashville, Tennessee 37219



Anthony Wesolowski
ICT Coordinator and Vocational
Department Head
817 Lafayette Street
Michigan City, Indiana 46360

Elwyn G. Wheat State Supervisor Trade & Industrial Education 4839 Gaylyn Drive Jackson, Mississippi 39209

Benjamin Whitten
Area Superintendent for Vocational Education
Baltimore City Public Schools
2330 St. Paul Street
Baltimore, Maryland 21218

George Wiley Automotive Mechanics Instructor Lanier Area Technical School P.O. Box 58 Oakwood, Georgia 30566

Raymond Wilson Vocational Coordinator Amarillo Public Schools 910 W. 8th Amarillo, Texas 79101

Edwin F. Womack State Supervisor Trade and Industrial Education 334 State Office Building Atlanta, Georgia 30334

Robert Worthing Teacher 48 Glendale Avenue Livingston, New Jersey 07039

Robert M. Worthington Associate Commissioner Bureau of Adult, Vocational and Technical Education U.S. Office of Education Washington, D.C. 20202

Thomas Yeager Prosser Vocational Center 128 Edgemont Drive New Albany, Indiana 47150

Kenneth Young Assistant Director Department of Legislation AFL-CIO 815 16th Street, N.W. Washington, D.C. 20006 AVA Headquarters Staff Attending the Conference: Bernice Anderson Administrative Assistant and Secretary to the Board of Directors Lane C. Ash Director National Study for Accreditation of Vocational-Technical Education Lowell A. Burkett **Executive Director** Jan Compher Secretary to Mr. Griffin H. Dean Griffin Associate Director John P. Hudson Associate Director Helen Kempfer Assistant Director

Assistant Director
National Study for Accreditation of
Vocational-Technical Education
Margaret McNeil
Research Assistant
National Study for Accreditation of
Vocational-Technical Education
Donald L. Rathbun

Director of
Manpower Research Information
Warren G. Rhodes
Associate Director
AVA Intern from Rutgers University:
Josie Cole

